PETERBOROUGH CITY COUNCIL

SUSTAINABLE GROWTH AND ENVIRONMENT CAPITAL SCRUTINY COMMITTEE

THURSDAY 4 SEPTEMBER 2014
7.00 PM

Bourges/Viersen Room - Town Hall

AGENDA

Page No

1. Apologies for Absence

2. Declarations of Interest and Whipping Declarations

At this point Members must declare whether they have a disclosable pecuniary interest, or other interest, in any of the items on the agenda, unless it is already entered in the register of members' interests or is a "pending notification " that has been disclosed to the Solicitor to the Council.

Members must also declare if they are subject to their party group whip in relation to any items under consideration.

4. Call In of any Cabinet, Cabinet Member or Key Officer Decisions

The decision notice for each decision will bear the date on which it is published and will specify that the decision may then be implemented on the expiry of 3 working days after the publication of the decision (not including the date of publication), unless a request for call-in of the decision is received from any two Members of a Scrutiny Committee or Scrutiny Commissions. If a request for call-in of a decision is received, implementation of the decision remains suspended for consideration by the relevant Scrutiny Committee or Commission.

There is an induction hearing loop system available in all meeting rooms. Some of the systems are infra-red operated, if you wish to use this system then please contact Paulina Ford on 01733 452508 as soon as possible.

9.	**Scrutiny Task and Finish Group for Peterborough Farms Estate Strategy - Terms of Reference**	**169 - 170**
10.	**Forward Plan of Key Decisions**	**171 - 184**
11.	**Work Programme**	**185 - 190**

12. Date of Next Meeting

16 October 2014

Committee Members:

Councillors: N Arculus (Chair), Y Maqbool (Vice Chairman), R Brown, A Iqbal, Thulbourn, M Fletcher and J A Fox

Substitutes: Councillors: J Shearman, S Lane, R Herdman and S Allen

Further information about this meeting can be obtained from Paulina Ford on telephone 01733 452508 or by email – Paulina.Ford@peterborough.gov.uk

Emergency Evacuation Procedure – Outside Normal Office Hours

In the event of the fire alarm sounding all persons should vacate the building by way of the nearest escape route and proceed directly to the assembly point in front of the Cathedral. The duty Beadle will assume overall control during any evacuation, however in the unlikely event the Beadle is unavailable, this responsibility will be assumed by the Committee Chair.

PETERBOROUGH CITY COUNCIL

MINUTES OF A MEETING OF THE SUSTAINABLE GROWTH AND ENVIRONMENT CAPITAL SCRUTINY COMMITTEE HELD IN THE BOUGES/VIERSEN ROOMS, TOWN HALL ON 17 JULY 2014

Present:	Councillors Y Maqbool (Chairman), R Brown, J Stokes, JA Fox, N Thulbourn, M Fletcher
Also Present:	Councillor Sandford, Group Leader, Liberal Democrats Councillor Harrington, Group Leader, Peterborough Independent Forum Councillor JR Fox, Group Leader, Werrington First Paul Richards, Serco Operations Manager Councillor Seaton, Cabinet Member for Resources
Officers Present:	Simon Machen, Director of Growth and Regeneration Ricky Fuller, Head of Strategic Commissioning/Transformation Gemma Wildman, Principal Strategic Planning Officer Paulina Ford, Senior Governance Officer Phil McCourt, Interim Head of Legal and Democratic

1. Apologies for Absence

Apologies were received from Councillor Arculus. Cllr Stokes attended as substitute.

2. Declarations of Interest and Whipping Declarations

There were no declarations of interest or whipping declarations.

3. Minutes of Meetings held on 12 March 2014 and 7 April 2014.

The minutes of the meetings held on 12 March 2014 and 7 April 2014 were approved as an accurate record.

4. Call in of any Cabinet, Cabinet Member or Key Officer Decisions

There were no requests for call-in to consider.

5. Solar Panel Energy Working Group Report

The report was introduced by Councillor Fletcher who was the Chair of the Working Group. Members were informed that the Working Group had reviewed all the evidence and particularly the financial elements of the Ground Mounted Solar Photovoltaic (Pv) Panels (Solar Farms) and Wind Turbine Project. The report provided the Committee with their findings and recommendations as requested by the Committee at the Call-In meeting held on 12 March 2014. The Working Group by majority recommended that the scheme should not go ahead as they concluded that the financial returns were not viable and the risks unacceptably high. The report advised that Councillor Hiller had however dissented on the grounds that the viability of the schemes had been evidenced by independent experts and reports and that the risks were evaluated sensibly and the schemes should proceed. Councillor Sandford advised that whilst part of the Group he had not been in attendance at the meeting when the recommendations had been agreed.

Questions and observations were made around the following areas:

- Members stated that they had not been given any figures and it was therefore difficult to understand how the conclusion was reached. *Councillor Fletcher responded that the working group had received and studied the financial figures but the group had not felt it necessary to provide the figures submitted as the brief was merely to come to the Committee with a recommendation.*
- Members asked how a working group could come to the Committee with a recommendation without any evidence to support the recommendation. *Councillor Fletcher responded that the working group was poorly attended but the figures which had been put forward had been available for a while. The Group had drafted the report with the help of the Interim Head of Legal Services.*
- Members stated that the report did not detail the work undertaken and asked what experts had been consulted in the process. *Councillor Fletcher stated that there had been no opportunity to bring in experts to inform the Group. However there had been other opportunities to hear from experts on the subject at other meetings. However it was his opinion upon listening to the experts that it was not viable.*
- The Group Leader of the Peterborough Independent Forum responded that having the figures within the report would make no difference as they would be the same ones that had been presented to the Working Group and to Scrutiny previously. The Working Group had been tasked with making a recommendation from their findings.
- Members commented that the terms of reference of the working group were not answered in the report submitted to the Committee.
- The Group Leader of the Peterborough Independent Forum informed the Committee that the grading of the land had not been done under correct procedures.
- Members stated that the report was unhelpful and contained no useful information and needed to be revised and suggested that the Working Group do further work on the report and resubmit it with detailed information and justification for the recommendation.
- Councillor Thulbourn offered to meet with the Working Group to go through the detailed financial information to provide a more detailed report.
- The Cabinet Member for Resources addressed the Committee and pointed out that there was a strict timescale which needed to be adhered to and that Cabinet would be meeting at the end of July and that Members be mindful of the need to submit their recommendation to Cabinet in a timely fashion. He also advised that a recommendation to Cabinet would need to be supported by detailed evidence and reasons as to why the Working Group felt the scheme was not financially viable.
- Members asked what the scope of the report was. *Councillor Fletcher stated that it was around the whole enterprise and not merely America Farm. The terms of reference merely requested a recommendation of which the report had done.*
- The Group Leader of the Peterborough Independent Forum stated that the decision to take this scheme forward should not be rushed and there was already uncertainty regarding the financial viability of the scheme.
- Councillor Thulbourn recommended that Cabinet is asked that before making any decision on the scheme that they give the Working Group an opportunity with support to deliver another report that allows Cabinet to make a balanced decision.
- The Interim Head of Legal and Democratic Services suggested that if time did not allow for the Working Group to present a revised report to Committee before presenting to Cabinet that the Working Group present their report directly to Cabinet and bypass the Committee. The Committee agreed to this suggestion.
- A recommendation put forward by Councillor Thulbourn and seconded by Councillor Fox was for Councillor Thulbourn to Chair another meeting of the Working Group to review the financial elements of the Solar (Pv) Panels and Wind Turbines Project to review the evidence considered and if possible to present a report in sufficient time directly to Cabinet at its meeting at the end of the month. This recommendation was put to the vote and unanimously agreed.

RECOMMENDATION

1. The Committee noted the report and
2. The Committee asks Cllr Thulbourn to Chair another meeting of the Working Group established to review the financial elements of the Solar (Photovoltaic) Panels and Wind Turbines Project to review the evidence considered and, if possible, to present a report directly to Cabinet at its meeting to consider this issue at the end of the month.

6. Report on the Performance of the Serco Partnership (2013/2014)

The report was introduced by the Serco Operations Manager and provided the Committee with an update on the performance of the Serco Partnership during the 2013-2014 municipal year. Key highlights covered the following areas:

- Operations
- Growth
- Transformation; and
- Procurement

Questions and observations were made around the following areas:

- Members referred to page 32, paragraph 6.3 "The Complaints related to Revenues and Benefits" and were concerned as to the number (157) of complaints relating to delayed/failed services. *The Serco Operations Manager stated this largely referred to the Council Tax Support Scheme. Eleven thousand residents were paying council tax for the first time so there was a deluge of calls coming in which caused delays. The majority of complaints largely referred to this.*
- Members asked how the new online benefits claims system was progressing. *The Serco Operations Manager stated that this had improved processing time from 29 days to 24 days. However some claims would always be longer than the average time.*
- Members commented that Serco staff were always helpful and willing to listen.
- Members asked what non-compliance spending referred to. *The Serco Operations Manager stated that this would be where the council would work with the procurement team to identify a range of savings. It might be that the savings may not be exactly what the council would want and therefore did not follow a recommendation from Serco in the interest of customer service.*
- Members noted that Serco and the Council had signed a Notice of Change to remove the two remaining break clauses and asked why this had been agreed. *The Serco Operations Manager stated that there were two contracts with the council. One was the Serco Partnership Contract and the other was the ICT Contract which had predated the Partnership Contract. The ICT contract underpinned the transformation work and was therefore vital. Break clauses were approaching both parties and both parties wanted to stay together. The remedy was therefore to remove both break clauses to ensure continued delivery of the projects.*
- Members asked if the development of high-speed broadband referred only to council owned facilities. *The Serco Operations Manager stated that the initial phase of the project was only for public buildings. The council would be saving a considerable amount even with this first phase.*
- Members followed-up stating that the ICT support for councillors was of a high quality, however the council was in a difficult economic situation and asked if there was a risk that councillors were subject to too much generosity in terms of ICT support. Was there a single piece of technology that did everything that a laptop, iPad etc. did. *The Head of Strategic Commissioning/Transformation responded that there were areas that were being looked at regarding the use of one piece of technology which would do everything that iPads, laptops, etc. would do. Google Chrome books were being looked at.*

- Members responded that the difficulty in an ICT strategy was that there was competition between Apple and Microsoft and therefore there was difficulty in having systems which worked together. *The Serco Operations Manager stated that this was indeed the case but it was regrettably outside of Serco's control.*
- Members asked about the server upgrades and requested an update on where this was and what the timeframe was for delivery. *The Serco Operations Manager responded that the direction of travel for the council was to move away from locally based servers and move to a cloud-based server. This would mean data was placed in areas other than local servers based within the council. Data would therefore be in a central place and far more secure. This would be an incremental process.*
- The Cabinet Member for Resources advised that there was a very wide ranging change to the IT architecture which underpinned the services that the council provided and what that would look like in future. Services to residents would be provided in a more cost-effective one stop way than it was at the current time. This would be shared with councillors in the coming months but it would need to be shared with Cabinet first.

ACTIONS AGREED

The Committee noted the report and requested a further report in one year.

Councillor Harrington, Group Leader, Peterborough Independent Forum left the meeting at this point.

7. Peterborough Draft Developer Contributions Supplementary Planning Document (SPD)

The report was introduced by the Principal Strategic Planning Officer which provided the Committee with an update on the proposed changes to the way developer contributions (S106 agreements) would be negotiated in the future. The Committee were asked to comment on the Peterborough Draft Developer Contributions Supplementary Planning Document (SPD) before being presented to Cabinet.

Questions and observations were made around the following areas:

- Members asked why the council had decided to adopt a Community Infrastructure Levy (CIL). *The Director of Growth and Regeneration responded that the current POIS system could not be continued post 2015 as it would not be a legal process. Most councils did not have POIS or CIL in place. Peterborough was one of the few Local Authorities that had collected money towards the cost of new infrastructure. In the future only councils where it would not be viable, in that it would threaten the viability of new development, would not be pursuing CIL.*
- Members referred to the Integrated Development Schedule and stated that members of the public may be interested in the 20 pages of individual projects which the council was spending money on. Why was this not being consulted on. *The Director of Growth and Regeneration stated that CIL could not be charged unless new infrastructure was needed to support growth. The other aspect of CIL was that you had to be able to evidence that you could not afford the infrastructure that was needed to deliver growth. Therefore the list of projects was there to evidence the gap between what the council had and what the cost of infrastructure would be to enable growth. Many of the individual projects listed sat within other strategy documents which the council had. The strategies were pooled together in terms of capital investment within the list. There would need to be a separate conversation about what projects would be funded, but it would have been confusing to have it as part of the* Peterborough Draft Developer Contributions Supplementary Planning Document (SPD)*. Elements of the list had been to full public consultation. The Principal Strategic Planning Officer stated that the document was a live document which would be added to and updated over time.*

- Members referred to page 68 of the report for some clarification regarding the Lifetime Homes Standards element of the report. *The Principal Strategic Planning Officer stated that for a scheme of 15 or more dwellings there was a target to provide 20% of homes built to Lifetime Homes Standards, and for a scheme of 50 or more dwellings, 2% of dwellings would be required to be built to a wheelchair home standard, and the figures represented this requirement.*
- Members asked how community involvement was being delivered within these projects e.g. open space development. *The Director of Growth and Regeneration stated that councillors could assist with this through the work being carried out by the Community Development Manager which would provide an evidence base for projects being undertaken. Parish plans were however very useful in providing information on local needs. The Principal Strategic Planning Officer stated that the CIL charge required 15% of the funds to go to the local community through Parish Councils and if a Neighbourhood Plan was in place this would increase to 25%.*
- Members asked how decisions on development could be subject to greater community involvement. *The Director of Growth and Regeneration stated that this was subject to provisions of the Localism Act. There were provisions in the Act which enabled areas to form local groups which could influence decisions by producing a Neighbourhood Plan.*
- Members followed-up asking if this incorporated the local plan put together by the Community Development Manager. *The Director of Growth and Regenerations stated that this was not the case. Local Plans under the Localism Act are a statutory development plan which requires a referendum and independent examination. It was therefore a legal process to which there were clear guidelines which the council was obliged to support.*
- Members asked how non parished areas could get involved in producing a Neighbourhood Plan. *The Director of Growth and Regeneration referred to the Statement of Community Involvement advising that this set out the process for producing a Neighbourhood Plan. Any community wishing to get involved in the process would be given assistance and guidance by a dedicated officer. There was an incentive to produce a Neighbourhood Plan as 25% of the money generated through CIL would go back to the community.*
- Members felt that the Statement of Community Involvement was a long and complex document. Two-thirds of the council's area was un-parished. Members were concerned that these areas would not be engaged in how the CIL money would be spent in their wards. Members requested that more thought be given as to how these communities could be engaged with and assisted in determining how the money would be spent in their community. *The Director of Growth and Regeneration stated that the role of Ward Members was to facilitate involvement from communities to generate a list of projects. The role of the Ward Member was pivotal in how the 15% of CIL money was spent in un-parished areas.*
- Members asked if it was a wise decision to put responsibility for such a large amount of money in the hands of a single person. *The Director of Growth and Regeneration responded that the money would not be in the hands of one person. The priorities would be decided by the community itself. The Community Development Manager merely collated the list of projects.*
- Members reiterated that there needed to be a strategy in place for engaging with the communities as to how CIL was spent and to make sure there was follow-through on projects. If this was not put in place it could be detrimental to the growth of the city.
- Members asked if CIL money would go into a city-wide pot. *The Director of Growth and Regeneration stated that 85% would go into a strategic pot and 15% would be in a local pot designed to help the local community.*
- Members asked how parish councils would become involved. *The Director of Growth and Regeneration stated ward councillors should work with parish councils to prioritise initiatives. The Principal Strategic Planning Officer added that other groups besides Parish Councils would be worked with in un-parished areas.*

- Members congratulated the Principal Strategic Planning Officer on the Peterborough Draft Developer Contributions Supplementary Planning Document (SPD) which they felt was a well presented and detailed document.

ACTIONS AGREED

1. The Committee noted the report and the Peterborough Draft Developer Contributions Supplementary Planning Document (SPD).

2. The Committee requested that the Director for Growth and Regeneration report at a future meeting to consider the means by which the Council may best involve local communities in the selection and design of projects that form the overall growth strategy for the City.

8. Review of 2013/1014 and Future Work Programme 2014/2015

The Senior Governance Officer introduced the report which provided the Committee with a review of the work undertaken by the Committee during 2013/14 and the opportunity to approve the draft work programme for 2014/15.

- Members asked what had happened to the 20MPH Speed limit – Scrutiny Task and Finish Group Report. *The Senior Governance Officer responded that the report would be presented to Cabinet on 28 July 2014.*

ACTIONS AGREED

The Committee noted the report and approved the draft Work Programme for 2014/15.

9. Forward Plan of Key Decisions

The Committee received the latest version of the Forward Plan of Key Decisions, containing key decisions that the Leader of the Council anticipated the Cabinet or individual Cabinet Members would make during the course of the following month. Members were invited to comment on the Forward Plan and, where appropriate identify any relevant areas for inclusion in the Committee's work programme.

ACTIONS AGREED

The Committee noted the Forward Plan of Key Decisions.

The meeting began at 7.00pm and ended at 8.45pm CHAIRMAN

SUSTAINABLE GROWTH AND ENVIRONMENT CAPITAL SCRUTINY COMMITTEE	Agenda Item No. 5
4 SEPTEMBER 2014	Public Report

Report of the Director of Growth and Regeneration

Contact Officer(s) – Julia Chatterton
Contact Details – 01733 452620

PETERBOROUGH FLOOD RISK MANAGEMENT STRATEGY

1. PURPOSE

1.1 This report is to inform and consult the Sustainable Growth and Environment Capital Scrutiny Committee about the draft Peterborough Flood Risk Management Strategy before it is presented to Cabinet on 22 September 2014. Cabinet will be requested to approve the draft for the purpose of a six week public consultation period.

2. RECOMMENDATIONS

2.1 The following recommendations are proposed:

- Acknowledge the statutory requirement for a Peterborough Flood Risk Management Strategy (FMS)
- Review and provide comments on the FMS with such comments reported to Cabinet

3. LINKS TO THE SUSTAINABLE COMMUNITY STRATEGY

3.1 The FMS contributes to all of the priorities and many of the outcomes from the Sustainable Community Strategy as flood and water management is about protecting people and property; working in partnership; helping communities to understand risks and take action to make themselves more resilient; about improving our natural environment and ensuring that Peterborough is sustainable in the long term so that it is able to attract continued economic investment.

4. BACKGROUND

4.1 The Flood and Water Management Act 2010 (FWMA 2010) makes Peterborough City Council a Lead Local Flood Authority with responsibility for co-ordinating the management of surface water flood risk (flooding from surface runoff, groundwater and ordinary watercourses). Lead Local Flood Authorities have a duty to develop, maintain, apply and monitor a 'local flood risk management strategy' which must specify:

- The level and types of flood risk in the area
- The flood management organisations and their responsibilities
- The functions these organisations carry out
- Objective for managing the risk
- The costs of the actions and how these will be paid for
- The benefits of the actions
- How the strategy contributes to the wider environmental objectives

4.2 The statutory obligation for the local flood risk management strategy is to consider the types of flood risk for which Peterborough City Council is responsible. However the FMS has been developed as a partnership plan with all of the flood and water management organisations. The FMS therefore proposes to cover flood risk from all sources and includes actions from all

partners in order to prepare one document that can be a resource and central point of contact for all organisations, City Council officers and residents interested in finding out about flood risk.

5. KEY ISSUES

5.1 Issues for focus:

- Understanding the City Council's responsibilities (Chapter 1)
- Understanding the most significant flood risks in Peterborough (Chapter 7)
- The need for all flood and water management organisations to financially contribute to schemes in order to unlock any Government funding (Chapter 9)
- The range and type of actions to be delivered and the costs of these (Chapter 10 and appendix F)

6. IMPLICATIONS

6.1 Location
The impact of the FMS is city-wide.

6.2 Equality
No significant equality impacts have been raised by the FMS. In future if the FMS is adopted and if individual schemes within the action plan are implemented, the equality impacts of these schemes will need to be fully considered through the design and consultation processes.

6.3 Legal
The Council must prepare an FMS and must follow due Regulations in its preparation in order to fulfil the requirements under the FWMA 2010.

6.4 Financial
At this stage the draft FMS is proposed for public consultation, so the immediate costs are those associated with consultation and these can be easily covered by existing budgets. If the plan should be adopted there are future financial implications to be considered. All of the projects proposed in the action plan will need to have business cases developed and approved before delivery could take place and approval would be sought from all project partners.

6.5 The following City Council budgets are currently funding the type of flood risk related work that is included in the action plan: Resilience, Flood and Drainage, Highway Maintenance, Highways Salary budget, Strategic Planning and the Future Cities Demonstrator project (Peterborough DNA).

6.6 Implementation of the FMS does not require any additional City Council revenue budgets. Delivery of the draft action plan in full would require budgets to remain at their present value but at this stage the action plan is effectively a wish list until business case approval is granted for each scheme. The significant budgetary constraints that the City Council faces are well noted. Projects will have to be carefully prioritised based on the benefits, and funding will be sought from a range of sources. While the total cost of the ten year partnership action plan is notable the larger schemes making up most of these actions are Main River schemes proposed for Government funding. These will be led by the Environment Agency. In order for Government funding to be drawn down, local contributions from the Regional Flood and Coastal Committee, local authorities, communities and/or businesses are required for all schemes. The split of this contribution over several sources means, however, that any direct contributions from the City Council will be small compared to the total project costs and the benefits that would be delivered.

6.7 Currently the City Council's flood and water management function has no capital budget. Depending on the designs of schemes and agreements over which organisation is to own the asset(s) produced we may need to establish a small capital budget stream in future. In the first instance projects that deliver growth benefits will apply for monies collected through the Planning Obligations Implementation Scheme (POIS) or Community Infrastructure Levy (CIL). The risk with regards to competition for these funds is noted.

6.8 Dependencies and Risks

Delivery of projects may be affected by the need to obtain planning consent; flood defence or ordinary watercourse land drainage consent, landowner permission, maintenance agreements, funding and partner approval as well as by updated information about the levels of risk (e.g. flood modelling).

6.9 Environmental

Wherever possible the delivery of flood risk management schemes must also bring wider environmental benefits such as improvements to water quality, biodiversity and public amenity. This is borne in mind through the FMS.

7. CONSULTATION

7.1 Extensive engagement with the public and partner organisations has taken place since the enactment of the Flood and Water Management Act 2010. Evidence from this has been gathered to shape the emerging FMS. The engagement includes holding public flood awareness events and flood warden training, consulting on the Flood and Water Management Supplementary Planning Document, writing to Parish Councils, attending resident, neighbourhood and Scrutiny meetings, learning from flood incidents and working very closely with other flood management organisations to share understanding and develop the FMS.

7.2 The principal flood and water management authorities involved in developing this plan (the Environment Agency, the Internal Drainage Boards and Anglian Water) have supplied information and have had the opportunity to review the FMS iteratively as it has developed.

8. NEXT STEPS

8.1 If Cabinet approves the draft FMS on 22nd September it will be published for six weeks public consultation in October to November 2014. This will provide an opportunity for the public to input to and comment on both the main strategy document and the action plan. The City Council can then make any necessary changes to the FMS and adopt it in early 2015.

8.2 Progress with the action plan within the FMS will be monitored on a yearly basis with updates made as required. The rest of the FMS will be reviewed on a five year cycle.

9. BACKGROUND DOCUMENTS

Used to prepare this report, in accordance with the Local Government (Access to Information) Act 1985.

9.1 The following documents have been used

- Draft preview of the Anglian Flood Risk Management Plan, Environment Agency, 2014. This regional plan aligns with the FMS and is out for public consultation at the same time.

- The National Flood and Coastal Erosion Risk Management Strategy, Defra, 2011

10. APPENDICES

10.1 The following is attached to this report:

- Draft Peterborough Flood Risk Management Strategy and appendices

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PETERBOROUGH CITY COUNCIL

Peterborough Flood Risk Management Strategy

Peterborough
Creating the UK's Environment Capital

Peterborough SuDS

Peterborough Flood Risk Management Strategy

Consultation Preface

How to get involved

You can see the full consultation draft version of the Peterborough Flood Risk Management Plan at: www.peterborough.gov.uk/floodstrategy

A copy of the consultation draft is also available to view at Peterborough City Council's Customer Service Centre at Bayard Place.

The Flood and Water Management Officer will be attending the Parish Council Liaison Group meeting on 24th September 2014.

Please send your comments either by email to watermanagement@peterborough.gov.uk or in writing to:

Flood and Water Management
Peterborough City Council
Stuart House East
St John's Street
Peterborough
PE1 5DD

Please clearly let us know what section of the document you are commenting on.

The closing date for all comments is close of play on Thursday 20th November 2014

Flood Risk Management Strategy Production

This document is the draft Flood Risk Management Strategy for public consultation. It has been prepared by Peterborough City Council (the Lead Local Flood Authority) with input from the Environment Agency, Anglian Water, North Level District Internal Drainage Board, Middle Level Commissioners, Welland and Deeping Internal Drainage Board, the Highways Agency and the Local Resilience Forum.

This is not the final strategy and we want to know what you think through this consultation period.

This document has been prepared by collecting information over the last three and a half years about flood risk in Peterborough and about the needs to build resilience against flooding. The following table sets out some of the major events that have contributed to the development of this strategy and the remaining stages required for finalisation and adoption.

Stage	Event	Date
Evidence gathering - significant community engagement	Continuous involvement of Flood and Water Management Partnership	2010 - 2014
	City Centre Flood Awareness Fair	September 2011
	Letters sent to all Parish Councils to invite them to nominate flood wardens	September 2011
	Issued community newsletter	Spring 2012
	Development of Flood and Water website for residents and developers	April 2012
	Thorpe Gate Residents meeting	April 2012
	Flood Awareness Fair – West Ward	February 2013
	Preparation of Flood and Water Management Supplementary Planning Document	December 2012 – December 2013
	Presentation to Scrutiny Commission for Rural Communities	March 2013
	Cambridgeshire Community Resilience Event	April 2013
	Peterborough Community Resilience Event	June 2013
	Association of Drainage Authorities Woking Demonstration Fair	July 2013
	Engagement as part of response to Main River flood incidents	November – December 2013, February 2014
	Engagement as part of response to surface water flooding incidents	August 2011, April - August 2012, Winter 2013/14, June 2014
Development	Consultation draft being developed	2014
Consultation draft published	Public consultation on the draft Flood Risk Management Strategy	October – November 2014
Revision	Comments assessed and incorporated wherever appropriate	November – December 2014
Partnership approval	Review and approval as joint strategy by the Flood and Water Management Partnership	March 2015
Adoption	Peterborough Flood Risk Management Strategy adopted by Peterborough City Council	2015
Implementation and monitoring		2015 – 2020
First review		2020

Related documents also currently out for consultation

1. *Strategic Environment Assessment of the Peterborough Flood Risk Management Strategy*, Peterborough City Council: www.peterborough.gov.uk/floodstrategy

2. *Flood and Water Management Supplementary Planning Document version 2*, Peterborough City Council www.peterborough.gov.uk/waterdocuments

3. *Anglian Flood Risk Management Plan*, Environment Agency: < TO BE ADDED ONCE LINK BECOMES AVAILABLE IN SEPTEMBER >

Further information

For all general queries about flood risk and water management visit the website at www.peterborough.gov.uk/water.

OS Maps – Copyright Note

Contents

1. Introduction

1.1. Aims

1.1.1. The aims of the Peterborough Flood Risk Management Strategy are:

a) To confirm and raise awareness of the risk and management of flooding in Peterborough
b) To set out a clear plan of actions to tackle local issues and opportunities that can be updated each year.
c) To take a holistic and cross-partner approach to flood risk management, considering other elements of water and environmental management that are affected or can be improved.
d) To co-ordinate partner actions to ensure projects and schemes are as efficient as possible and that joint funding opportunities are sought.

1.1. Requirement, review procedures and Peterborough's approach

Requirement

1.1.1. The Flood and Water Management Act 2010 (FWMA 2010) set out a significant change to responsibilities with regards to how flood risk is managed in England and Wales. Under the FWMA 2010, Peterborough City Council is a Lead Local Flood Authority (LLFA) with a responsibility for co-ordinating 'local flood risk' management. With this comes several other new duties and powers. Each of these is explained further in chapter 3.

1.1.2. Section 9 of the Act sets out the requirement for LLFAs to develop, maintain, apply and monitor a 'local flood risk management strategy'. The strategy must specify:

a) The flood risk in its area
b) The risk management authorities
c) The management functions carried out
d) Objectives for managing the risk
e) The actions to achieve the objectives
f) The costs of those actions and how they are to be paid for
g) The benefits of the actions
h) How and when the strategy will be reviewed
i) How the strategy contributes to the achievement of wider environmental objectives

1.1.3. The local flood risk management strategy for Peterborough is entitled the Peterborough Flood Risk Management Strategy and given the acronym FMS.

1.1.4. The Act requires the FMS to be consistent with the National Flood and Coastal Erosion Risk Management Strategy. Further details can be found in sections 3.3 and 3.4.

Local' flood risk

1.1.5. In setting out the statutory requirement in the FWMA 2010 for a local flood risk management strategy, the term 'local' is specifically defined in paragraph 9, section (2) as flood risk from:

a) ordinary watercourses
b) groundwater, and
c) surface runoff

1.1.6. This has been defined in order to clearly set out with the new responsibilities for Lead 'Local' Flood Authorities. These sources of risk are explained in paragraph 1, section 6 of the FWMA 2010 as:

> (3) "Ordinary watercourse" means a watercourse that does not form part of a main river.
>
> (4) "Groundwater" means all water which is below the surface of the ground and in direct contact with the ground or subsoil.
>
> (5) "Surface runoff" means rainwater (including snow and other precipitation) which—
>
> (a) is on the surface of the ground (whether or not it is moving), and
>
> (b) has not entered a watercourse, drainage system or public sewer.
>
> (6) In subsection (5)(b)—
>
> (a) the reference to a watercourse includes a reference to a lake, pond or other area of water which flows into a watercourse, and
>
> (b) "drainage system" has the meaning given by paragraph 1 of Schedule 3.

Figure 1-1: Extract from section 6 of the FWMA 2010

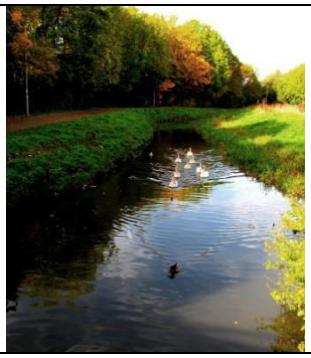
Peterborough City Council must co-ordinate management of flooding from:		
		
Surface runoff (often referred to as surface water)	**Ordinary watercourses**	**Groundwater**

Figure 1-2: Illustration of the sources of flood risk for which an LLFA is responsible for managing

Peterborough's approach

1.1.7. To meet the regulations and Peterborough City Council's legal responsibilities, it would be acceptable if the FMS only dealt with this 'local' risk. However it is felt by the City Council to be more appropriate for the FMS to be inclusive of all types of flood risk management. Seventeen of the watercourses in urban and rural areas of Peterborough are classified as Main River and present a notable risk to both homes and businesses. These would otherwise be excluded from the FMS. Flood risk from surface runoff, groundwater and ordinary watercourses may also interact with other sources of flooding including sewers and Main Rivers to worsen the impacts. It is important to consider the interaction of flooding from all sources to correctly assess the actual flood risk to a location. For example, since many ordinary watercourses

and surface water sewers (taking rainwater) in the city ultimately flow into a Main River, when river water levels are very high, water will not be able to discharge and will instead overflow from the ordinary watercourses and the sewers.

1.1.8. Responsibility for different sources of flood risk sits with different organisations, for example, Main Rivers are managed by the Environment Agency. However through working together with all of the water management organisations operating in Peterborough, the City Council has produced a strategy that co-ordinates flood risk management, and which residents and businesses can use to find answers to the questions they wish to ask.

1.1.9. The Government's National Flood and Coastal Erosion Risk Management Strategy sets out certain visions and aims for the FMS (section 3.3.3) which have been followed in the preparation of the FMS, as required by the FWMA 2010. Taking these as a starting point, the FMS aims to be more holistic than requirements set out. We have instead discussed all sources of flood risk relevant to Peterborough and set out how other water and environmental management issues and pieces of legislation affect flood risk management and taken these into consideration in the plan of action that the City Council and its partners wishes to take forward.

1.1.10. It is inevitable that there will be competing demands across the Peterborough area as the differing landscapes and characteristics mean that the needs of each area will differ. The aim of the FMS is to bring all these flood risk management needs together and try to ascertain the overall priorities on which the City Council and its partners will invest resources over the coming years.

Completing and reviewing the FMS

1.1.11. There is no statutory deadline for producing a local flood risk management strategy, nor is there a prescribed format or scope beyond the legislative requirements contained in the Act. Guidance notes have however been developed by the Local Government Association and Peterborough City Council has considered these in the production of the FMS.

1.1.12. Since the City Council's role and expertise as an LLFA is still developing, it is likely that the FMS will need to be updated as new information comes forward. It is intended that the FMS will be formally updated every 5 years. It is hoped that future reviews will align with updates to a related but separate document, produced by the Environment Agency (EA), called the Anglian Flood Risk Management Plan.

Status in the planning system

1.1.13. As with any document, the FMS can be used as a material consideration in planning. In order to ensure that flood risk development policies have the required weight in the planning system a separate Supplementary Planning Document (SPD) has been prepared that is part of the Peterborough planning policy framework. The Flood and Water Management SPD specifically covers elements of flood risk and drainage which are relevant to new development and is discussed briefly in section 3.5.5 and in more detail in section 10.6.

2. Peterborough Background

2.1.1. Peterborough is a unitary authority located in the East of England, approximately 125 kilometres (80 miles) north of London. It comprises a large urban area and 25 villages set in countryside extending over an area of approximately 344 square kilometres. The area borders the other Lead Local Flood Authorities of Rutland, Lincolnshire, Cambridgeshire and Northamptonshire County Councils. The total population of Peterborough is estimated as 183,631 (2011 Census).

2.1.2. There is a long history of settlement in Peterborough, with evidence from the Bronze Age remains at Flag Fen, the nearby Roman town of Durobrivae and the Saxon settlement of Medehamstede. The Norman Cathedral still stands at the heart of the modern city; a city which expanded in Victorian and Edwardian times as Peterborough developed as a significant railway town, and then experienced further rapid growth from 1967 under the New Towns programme. Today, Peterborough is an important regional centre, providing employment, shopping, health, education and leisure facilities for people across a wide catchment area. Peterborough's rich archaeological heritage is demonstrated through its 40 archaeological sites of national importance designated as Scheduled Monuments, as well as by the existence of over 1,060 listed buildings.

2.1.3. Peterborough is surrounded by contrasting countryside. This is illustrated in Appendix A by the national landscape area classifications that feature in Peterborough. To the west and north, the shallow river valleys of the Nene and Welland give way to an undulating limestone plateau, with a denser pattern of attractive stone villages. To the east of the City, the fen landscape is flat and open, with the villages of Eye and Thorney on islands of higher ground and a settlement pattern of dispersed hamlets and farms. This eastern area was originally marshy fen area subject to periodic flooding. In the 17th century the Fens were drained to create a new landscape with rich soils well suited to agriculture and horticulture. Water levels in this landscape are now continually managed to reduce flood risk and to support strong economic communities of agriculture and horticulture, as well as to allow navigation and encourage important nature and tourism opportunities. Appendix B provides more detail about the wider Fens landscape and about the objectives for managing it.

2.1.4. Two different river catchments cover the majority of Peterborough; the Welland and the Nene. The Welland flows through Peterborough from its source in Hothorpe Hills, Northamptonshire to its mouth in the Wash. The River Welland itself forms the northern boundary of Peterborough but its catchment extends further south and includes the villages of Barnack, Ufford, Etton, Marholm, Glinton and Peakirk as well the northern part of Peterborough's urban area. The rivers making up the Peterborough Brooks form notable tributaries to the Welland. The greater part of Peterborough is within the River Nene catchment which includes tributaries such as Thorpe Meadows, Orton Dyke and Stanground Lode. The River Nene which is formed from three sources, the main one being Arbury Hill in western Northamptonshire, and flows to the Wash, divides Peterborough city centre in half. For this reason the Nene historically provided a principal transport route for trade and for building materials such as those used to construct the Cathedral and more recently the railways. The Nene and Welland Rivers have had their courses and floodplains altered significantly over time to aid such uses. Both are now managed by the Environment Agency for flood risk and navigation purposes. A small area in the southwest of Peterborough drains via the Whittlesey and District Internal

Drainage Board District to the Old Bedford including Middle Level catchment. This area includes part of Stanground and the agricultural land to the east of the urban boundary. All three catchments are shown in figure 2-2.

2.1.5. Both the landscape and water environments of Peterborough contains a rich biological diversity. Peterborough has three internationally designated sites; Barnack Hills and Holes Special Area of Conservation (SAC), Orton Pit SAC and the Nene Washes SAC which is also a Special Protection Area (SPA) and a Ramsar site. There are also 17 Sites of Special Scientific Interest (SSSI), of which three are designated National Nature Reserves (Castor Hanglands, Bedford Purlieus and Barnack Hills & Holes); 107 County Wildlife Sites of value and five Local Nature Reserves. Twenty-nine areas of Peterborough have also been recorded as Conservation Areas, some in the city centre and some in outlying villages. The majority of these villages are located in the west and north-west of Peterborough. There are two country parks, a number of parklands and a 'Green Grid' of walking and cycling routes across the authority.

2.1.6. Peterborough has experienced and will continue to experience rapid growth requiring new housing, infrastructure and commercial/industrial development. Local planning policy makes provision for a net increase of at least 25,000 new homes and 20,000 new jobs between 2009 and 2026. As of 1st April 2014 there was an outstanding requirement of 21,309 homes. The spatial strategy provides for housing growth at a wide variety of places across the local authority area, but with a distinct emphasis on locations within and adjoining the urban area.

2.1.7. The city centre is a key area of focus for the City Council to ensure that Peterborough remains to be a regional service centre. The city centre presents a wide range of constraints and opportunities linked to flood risk. Prime redevelopment opportunities exist along the Nene which would help improve the connection between the existing centre around Cathedral Square, the River itself and the communities south of the Nene. The River is a hugely underutilised asset which would benefit from revitalisation, additional presence and environmental improvements. Housing growth, a clear route for ensuring investment in this area, comes with its own water related constraints to overcome, not least land contamination, flood risk from the river and the existence in many areas of combined sewers which can limit capacity for wastewater discharge.

2.1.8. It is against this background that the risks, challenges and opportunities related to local flooding have been considered and presented in the FMS.

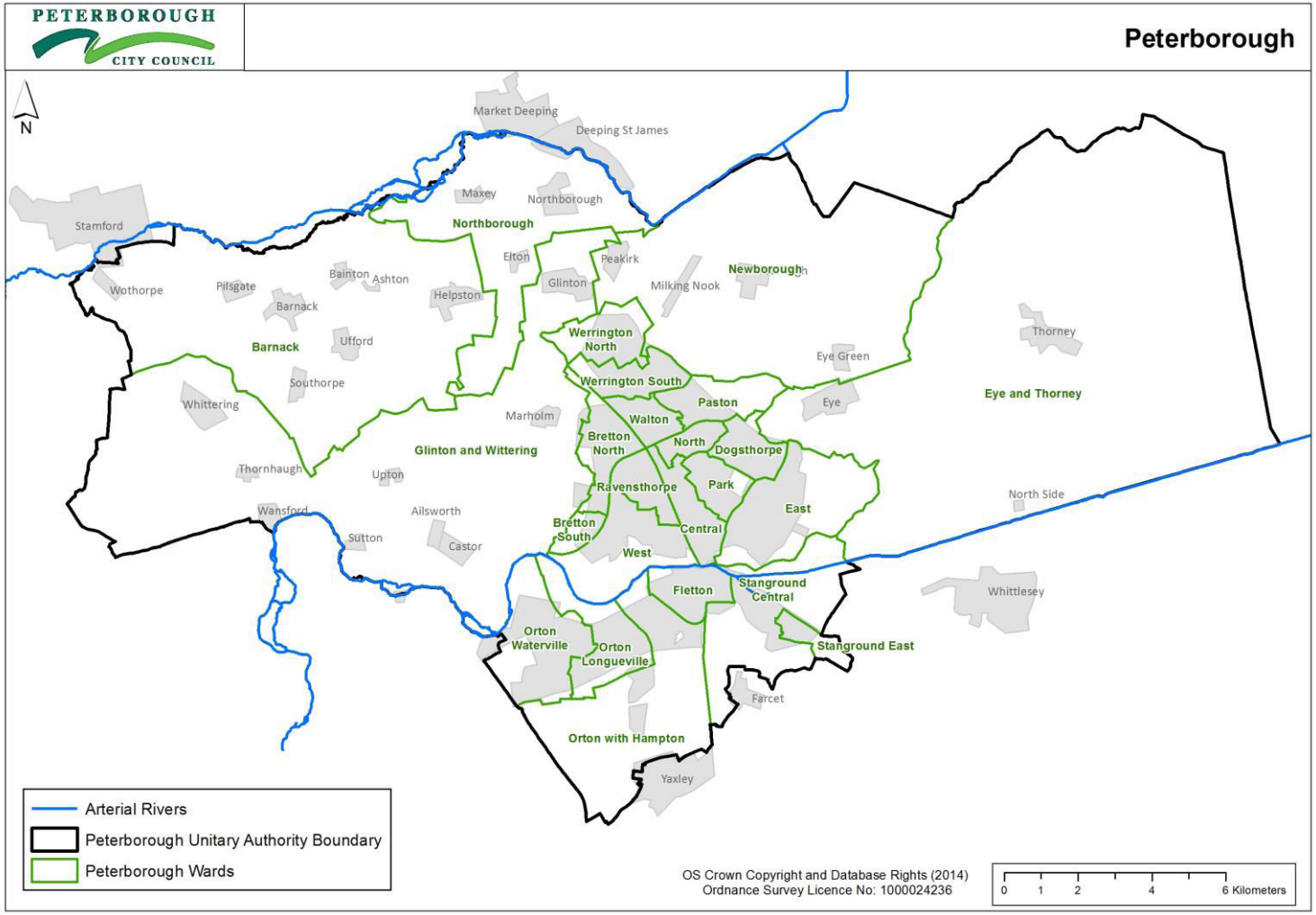
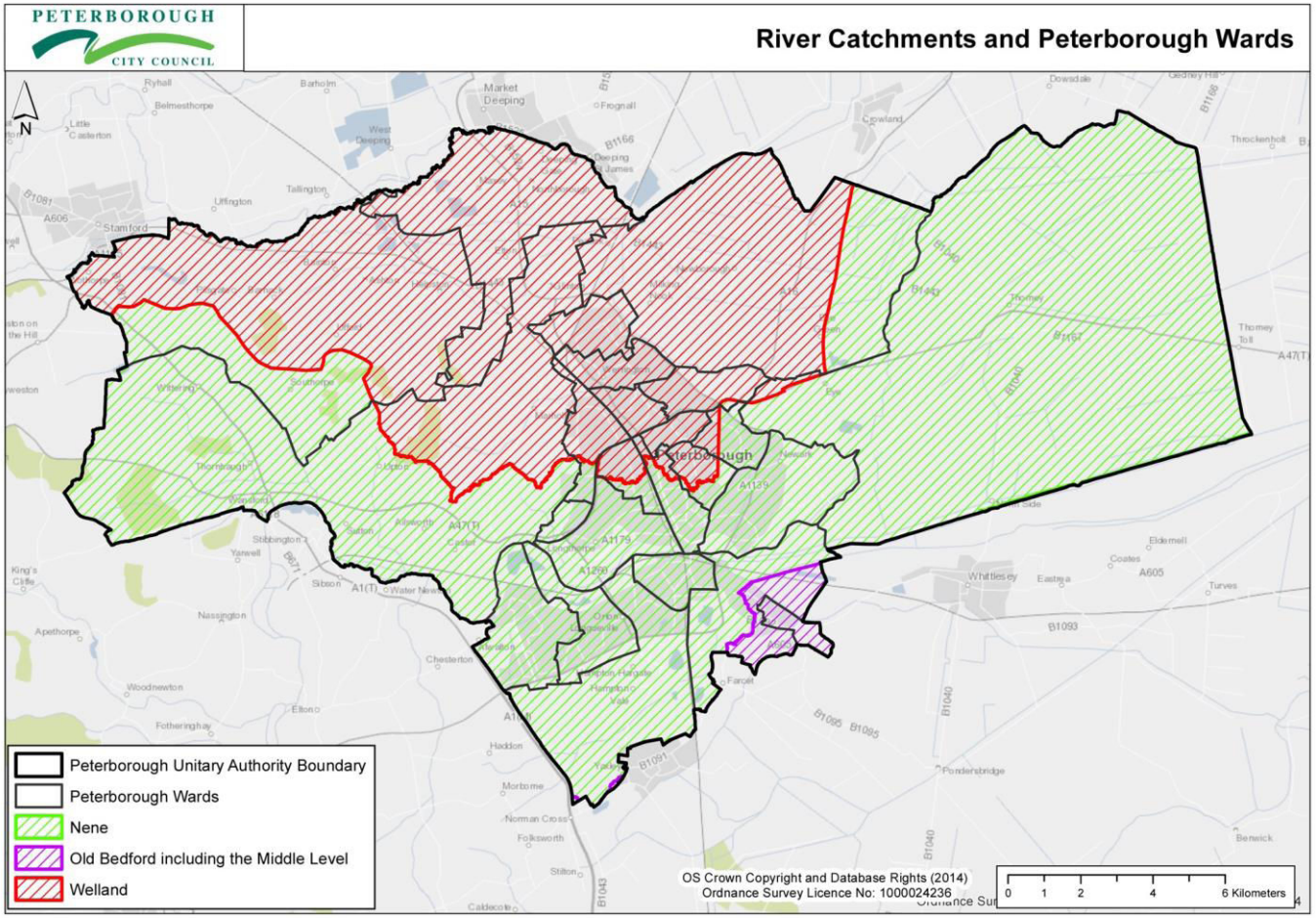


Figure 2-1: The area of Peterborough City Council (a unitary authority) with village and ward labels

Figure 2.2:


PETERBOROUGH
CITY COUNCIL
River Catchments and Peterborough Wards
N
Peterborough Unitary Authority Boundary
Peterborough Wards
Nene
Old Bedford including the Middle Level
Welland
OS Crown Copyright and Database Rights (2014)
Ordnance Survey Licence No: 1000024236
0 1 2 4 6 Kilometers

3. Policy, Legislation and Guidance

3.1. Links between legislation and guidance documents

3.1.1. Flood and water management in Peterborough is influenced by European, national and local policy and legislation as well as technical studies and local knowledge. Figure 3-1 below attempts to summarise the main contributing documents.

3.1.2. The key drivers for the production of the FMS are the FWMA 2010, the National Strategy, the Flood Risk Regulations 2009 and the Water Framework Directive. These are explained below alongside related policies and documents.

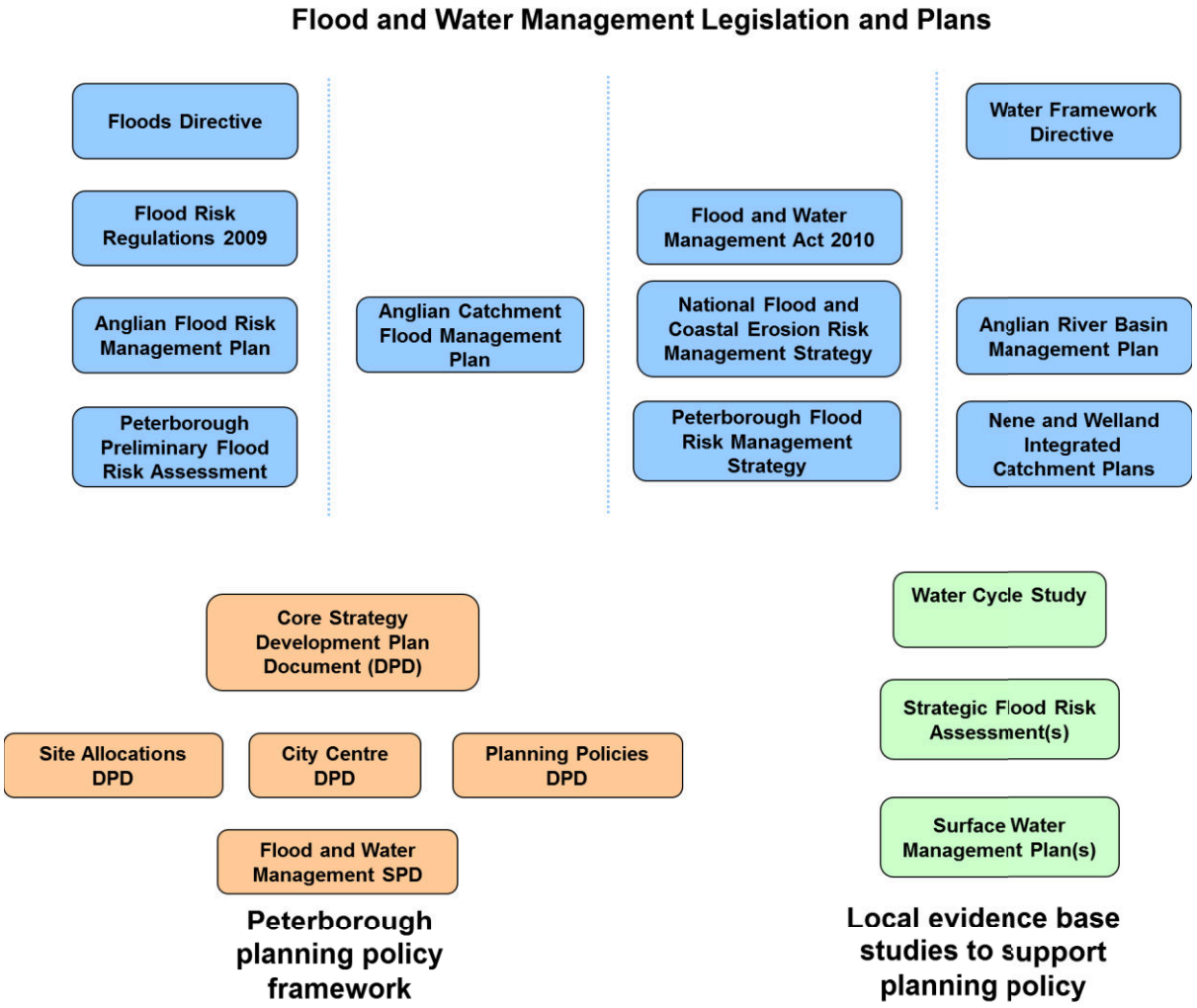


Figure 3-1: Legislation, strategies, policies and plans affecting flood risk management

3.2. European context

The Floods Directive

3.2.1. The EU Floods Directive - 2007/60/EC came into force due to a need for European Union countries (member states) to better understand and gather accurate data about the risks from surface water flooding. In the UK the Directive came into force via the Flood Risk Regulations 2009 which in turn sets the requirement for Preliminary Flood Risk Assessments (PFRA) and Flood Risk Management Plans to be produced. The Peterborough PFRA and the Anglian Flood Risk Management Plan are discussed below under the heading on local background.

The Water Framework Directive

3.2.2. The Water Framework Directive – 2000/60/EC (WFD) is a piece of EU legislation that came into force in December 2000 and was enacted into UK law in December 2003. The legislation requires member states to make plans to protect and improve the water environment. It applies to all surface freshwater bodies, including lakes, streams, rivers and canals as well as estuaries; groundwater; and coastal waters out to one mile from low water. There are four main aims of the WFD which are to:

a) improve and protect inland and coastal waters
b) promote sustainable use of water as a natural resource
c) create better habitats for wildlife that lives in and around water
d) create a better quality of life for everyone

3.2.3. The Directive requires European Union member states to:

a) prevent deterioration in the status of aquatic ecosystems, protect them and improve the condition of water for ecology
b) protect deterioration in the status of aquatic ecosystems, protect them and improve the condition of waters for ecology
c) aim to achieve a defined standard termed ‘good ecological status’ for all water bodies by 2015. If a water body has good ecological status it means that it has biological, chemical and structural characteristics similar to those expected under natural conditions. Where it is not possible to achieve this by 2015, and subject to criteria set out in the Directive, the aim is to achieve good ecological status by 2021 or 2027;
d) promote sustainable use of water as a natural resource;
e) conserve habitats and species that depend directly on water;
f) progressively reduce or phase out the release of individual pollutants or groups of pollutants that present a significant threat to the aquatic environment;
g) progressively reduce the pollution of groundwater and prevent or limit the entry of pollutants;
h) contribute to mitigating the effects of floods or droughts.
i) meet the requirements of the Water Framework Directive Protected Areas.

3.2.4. River Basin Management Plans produced by the Environment Agency (see section 3.4.6) detail the pressures facing the water environment and what actions need to be taken in order for the WFD to be met in each area.

3.3. National context

Flood and Water Management Act 2010

3.3.1. The FWMA 2010 takes forward some of the proposals in three water strategy documents previously published by the UK Government: Future Water, 2008; Making space for water, 2005 and the UK Government's response to Sir Michael Pitt's Review of the Summer 2007 Floods, 2008.

3.3.2. The FWMA 2010 makes many changes to the way that flood risk is managed in the UK. Some of the most significant changes are set out below:

i. Development of a national flood and coastal risk erosion management strategy and the need to act consistently with it.
ii. Giving the responsibility for co-ordinating management of flooding from surface runoff, ordinary watercourses and groundwater to lead local flood authorities (unitary and county councils)
iii. Development of local flood risk management strategies and the need to act consistently with these.
iv. The ability for risk management authorities to designate structures and features that affect flooding.
v. Establishing a sustainable drainage systems approval body (SAB) to approve and ultimately adopt proposed drainage systems in new and re-developments.
vi. A strengthening of the need for landowners to gain consent to carry out works on or near a watercourse.
vii. New arrangements for reservoir safety based on risk rather than size of the reservoir.
viii. Updates to the Regional Flood Defence Committee to make them Regional Flood and Coastal Committees.
ix. A duty for authorities to co-operate and provide information.

Other Legislation

Table 3-1: Other water related legislation that governs current roles and responsibilities with respect to flood and water management

Acts	Subject Matter
Land Drainage Act 1991	The powers and responsibilities of local authorities, Internal Drainage Boards (IDBs) and riverside landowners.
Water Act 1989	Establishment of water companies and of the National Rivers Authority (predecessor to the Environment Agency)
Water Resources Act 1991	The powers and responsibilities of the National River Authority
Environment Act 1995	Establishment of the Environment Agency and transfer of powers from the National Rivers Authority
Water Industry Act 1991	Supply of water and sewerage services
Highways Act 1980	Management and operation of the road network (including surface water drainage)

National Flood and Coastal Erosion Risk Management Strategy

3.3.3. Local flood risk management strategies must be consistent with the National Flood and Coastal Erosion Risk Management Strategy for England (the National Strategy) which was approved in July 2011 by Parliament. The National Strategy aims to ensure the risk of flooding and coastal erosion is properly managed by using the full range of options in a co-ordinated way. It order to deliver this it sets three objectives for communities, individual, voluntary groups and private and public sector organisations, and five objectives for Government to deliver. The former, which the FMS should deliver are set out below.

i. Manage the risk to people and their property.
ii. Facilitate decision-making and action at the appropriate level whether this is individual, community, local authority, river catchment, coastal cell or national.
iii. Achieve environmental, social and economic benefits, consistent with the principles of sustainable development.

3.3.4. The National Strategy highlights that flood management may mean that difficult decisions have to be taken on where risk management activities can and cannot be carried out at both national and local levels. These decisions and the processes by which they are taken should be based on a clear set of high-level guiding principles:

a) Community focus and partnership working
b) A catchment and coastal 'cell' based approach
c) Sustainability
d) Proportionate, risk-based approaches
e) Multiple benefits
f) Beneficiaries should be encouraged to invest in risk management

National Planning Policy Framework

3.3.5. Section 10 of the National Planning Policy Framework (NPPF) sets out the government's intention that planning should proactively help mitigation of, and adaption to, climate change including management of water and flood risk.

3.3.6. The NPPF aims to *"ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk. Where new development is, exceptionally, necessary in such areas, policy aims to make it safe without increasing flood risk elsewhere and where possible, reducing flood risk overall."*

3.3.7. The NPPF states that both Local Plans and planning applications decisions should ensure that flood risk is not increased and that development should only be considered appropriate in flood risk areas where it can be demonstrated that:

a) a site specific flood risk assessment has been undertaken which follows the Sequential Test, and if required, the Exception Test; and
b) within the site, the most vulnerable development is located in areas of lowest flood risk unless there are overriding reasons to prefer a different location; and
c) development is appropriately flood resilient and resistant, including safe access and escape routes where required; and

d) that any residual risk can be safely managed, including by emergency planning; and
e) the site gives priority to the use of sustainable drainage systems

3.3.8. Government has produced technical guidance to the National Planning Policy Framework which covers flood risk. This is a web-based resource entitled Planning Practice Guidance – Flood Risk and Coastal Change.[1]

3.4. River basin and catchment focused flood risk and water management

3.4.1. Water doesn't flow according to political boundaries. Each river and its tributaries form a catchment area in which water is expected to ultimately flow into the named river. Understanding the management of flood risk across catchments is essential to ensure that flood risk is managed effectively without the creation of unintended downstream impacts. When larger catchments are grouped together this is known as a river basin. Peterborough is part of the Anglian River Basin District.

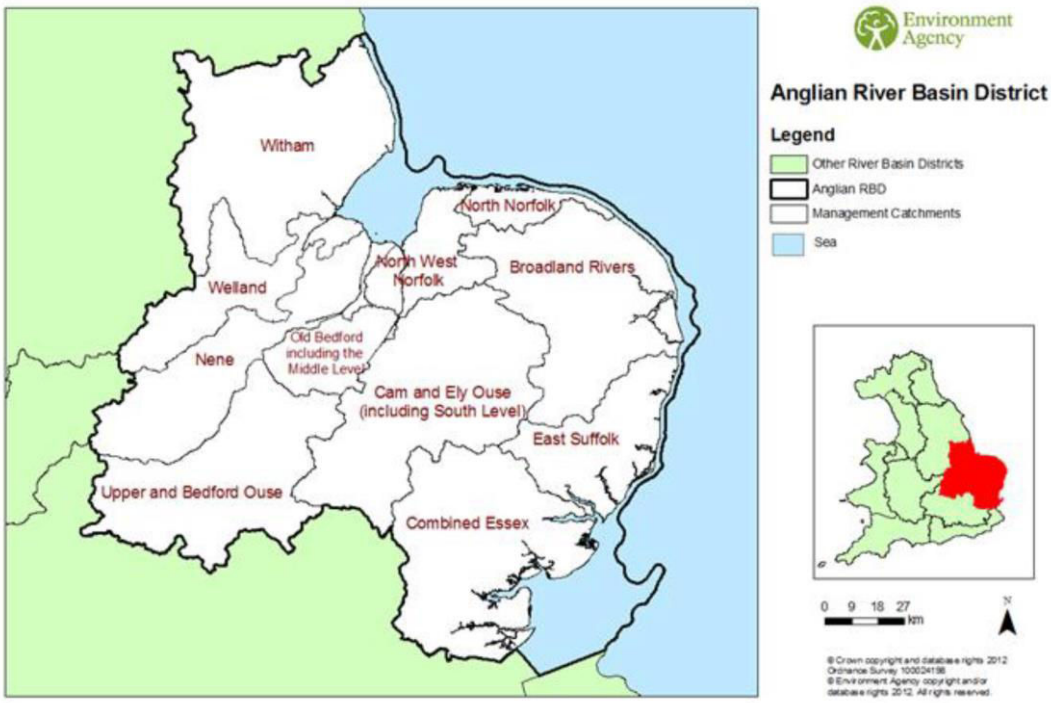


Figure 3-2: The Anglian River Basin District and its river catchments

Nene, Welland and Great Ouse Catchment Flood Risk Management Plans

3.4.2. In 2009 the Environment Agency completed Catchment Flood Management Plans (CFMPs) for each of Peterborough's river catchments. Within each river catchment areas were broken down for management's sake into policy units, where each unit represents similar types of flood risk in terms of the mechanisms of flooding, the level of risk and the type of receptor (people, environment etc). Each unit was assigned a policy to guide management in the area. The same policy covered all parts of Peterborough within the Nene, Welland and Great Ouse catchments:

[1] http://planningguidance.planningportal.gov.uk/ (2014)

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

3.4.3. Since preparation of the CFMPs the Great Ouse Catchment has been split down into smaller catchments for easier management. These are known as Upper and Bedford Ouse, Cam and Ely Ouse (including the South Level), North West Norfolk, and Old Bedford (including the Middle Level). South east Peterborough falls into the latter of these named catchments.

Anglian Flood Risk Management Plan

3.4.4. The Flood Risk Regulations implement the Floods Directive, and require the preparation and publication of Flood Risk Management Plans (FRMPs) by December 2015. The Environment Agency must prepare FRMPs covering flooding from main rivers, the sea and reservoirs.[1] These will draw on the relevant CFMPs covering Peterborough, to develop the FRMP. The Anglian Flood Risk Management Plan will be a river basin district level plan which highlights flood risk across the district and identifies the types of measures which need to be undertaken. The plan will enable effective co-ordination across catchments and better co-ordination with river basin management planning in support of Defra's Catchment Based Approach[2]. The Environment Agency will use FRMPs to inform investment in flood risk management.

3.4.5. The Anglian FRMP is being prepared on very similar timescales to the FMS and hence the two are being written in alignment. The Anglian FRMP will include local flood risk management, on a voluntary basis, while the FMS will also include flooding from main rivers, the sea and reservoirs. The FMS will complement the Anglian FRMP and provide a more local context to flood risk management.

Anglian River Basin Management Plan

3.4.6. The Environment Agency also produces plans for each river basin district to cover other elements of water management, such as water resources and protection of the water environment. The Anglian River Basin Management Plan (Anglian RMBP) is being updated on the same timescales as the Anglian Flood Risk Management Plan.

3.4.7. One of the aims of the Anglian RBMP is to deliver the improvements required by the European Water Framework Directive (section 3.2.2). This Directive applies to all water bodies. Ensuring that flood risk management abides by the requirements is a key part of delivering the third objective of England's National Flood and Coastal Erosion Risk Management Strategy.

[1] LLFAs in identified Flood Risk Areas must also prepare FRMPs but covering only 'local' sources of flooding. Peterborough is not part of a Flood Risk Area, so does not need to prepare a FRMP under the Flood Risk Regulations. However it still needs to prepare a local flood risk management strategy under the FWMA 2010.

[2] https://www.gov.uk/government/publications/catchment-based-approach-improving-the-quality-of-our-water-environment

Nene and Welland integrated catchment management plans

3.4.8. Integrated catchment management plans have been developed for both the Welland and the Nene to provide more detail on how the actions from the Anglian RBMP and Water Framework Directive can be delivered. These actions are joined by equally important actions to improve the watercourse and our enjoyment of it in a wider sense, for example by improving amenity value for visitors, facilities for boaters and fisherman and bringing communities together to encourage them to help protect and maintain their local water environment.

3.4.9. The plan for the Welland, known as the Welland Improvement Plan was finalised in 2013 by the Welland Valley Partnership (see section 6.11) and brings together the work and aspirations of many people and organisations, setting an agenda for the actions needed to enhance the River. Delivery of projects from the Plan is underway and linked Peterborough ones are referenced in Chapter 10 and Appendix F.

3.4.10. The River Nene Regional Partnership (see section 6.12) co-ordinated the development of an integrated catchment management plan for the Nene which contains a significant number of Peterborough-based projects. Not all of these will be discussed in the FMS due to some being more about green infrastructure and less about flood risk. Projects identified in the River Nene plan aim to bring about as many different benefits as possible across the full scope of water management work.

3.5. Local context

Peterborough Water Cycle Study (2010)

3.5.1. The detailed Water Cycle Study for Peterborough (2010) sets out a range of recommendations for growing Peterborough in a way that ensures the right water infrastructure can be in place to support development.

Peterborough Strategic Flood Risk Assessment(s)

3.5.2. A Strategic Flood Risk Assessment (SFRA) provides the essential information on flood risk, allowing local planning authorities to understand the risk across the authority area. SFRAs produced for Peterborough are available online on the City Council's web library of water management documents[2]. The SFRA Level 2 provides breach and hazard mapping information for Peterborough that may be useful to developers in undertaking site specific flood risk assessments (FRAs).

Peterborough Preliminary Flood Risk Assessment (2011)

3.5.3. The Peterborough Preliminary Flood Risk Assessment (PFRA) is a statutory document completed under the European Floods Directive. The PFRA process is aimed at providing a high level overview of flood risk from local flood sources, including surface runoff, groundwater, ordinary watercourses and public sewers. It is not concerned with flooding from main rivers or the sea. The Peterborough PFRA report of June 2011 confirms (based on the evidence collected) that there is no 'Flood Risk Area' of national significance within Peterborough's administrative area. However, the PFRA recognises that there are areas of flood risk with local significance that need further exploration.

[2] www.peterborough.gov.uk/waterdocuments

Peterborough Green Grid Strategy

3.5.4. The Green Grid Strategy draws up a framework and action plan for green space provision throughout the Peterborough area. The work was undertaken by a partnership formed from a number of environmental organisations alongside Peterborough City Council and Cambridgeshire County Council. The aim of the strategy is to ensure that Peterborough's growth goes hand in hand with the protection and provision of quality green infrastructure. The strategy's objectives relate to improving the quality of life within the region; contributing to sustainable water management, enhancing opportunities for visitors and tourism and delivering high quality sustainable development. A large number of the schemes put forward in the action plan relate to river corridor improvements which would benefit the water environment as well as the surrounding landscapes.

Local planning policy

3.5.5. The City Council's local planning policy includes those documents listed below. Relevant flood and water management policies are listed alongside.

Table 3-2: Peterborough planning policy documents

Policy document	Adoption date	Role	Flood and water management policies
Core Strategy Development Plan Document	2011	Sets the type and amount of development that will be accommodated in Peterborough up until 2026	CS12 – Infrastructure CS22 – Flood risk
Site Allocations Development Plan Document	2011	Identifies sites for development to meet the vision of the Core Strategy.	-
Planning Policies Development Plan Document	2012	Provides detailed policy to assist in the determination of planning applications.	PP16 – Landscaping and biodiversity implications of development PP20 – Development on land affected by contamination
City Centre Development Plan Document	Expected late 2014	Identifies sites for development and regeneration specifically within the city centre area.	Section 4.9
Flood and Water Management Supplementary Planning Document	2012	Provides detailed guidance about flood risk, drainage and how development can affect the water environment	Whole document

4. Delivering Wider Environmental Benefits

4.1. Introduction

4.1.1. The National Strategy requires the FMS to deliver environmental, social and economic benefits through taking an approach that is sustainable, uses community and partnership working, is catchment based and that delivers multiple benefits. This chapter explains why this is important and how we will ensure that this happens.

4.1.2. Delivering multiple benefits means that when a flood risk management scheme is designed it should also bring forward other improvements, for example the creation of new green infrastructure such as riverside paths or recreational facilities, improved habitat for biodiversity or improvements in water quality.

Figure 4-1: Pond dipping education at Ferry Meadows, Peterborough.
Figure 4-2: Boating and cycle opportunities, Peterborough
Images courtesy of Chris Porsz and Nene Park Trust.

4.2. Benefits of improved green space and water environments

4.2.1. Having an understanding of the benefits of our environment and of water helps to ensure that any projects deliver as many benefits as possible for the local community. Water is an essential ingredient to our lives for drinking and washing but has many other benefits that should not be overlooked. The provision of green space with well integrated water environments for people and wildlife to enjoy, provides benefits to our health and quality of life, recreation and tourism, economic regeneration and house prices, flood risk and water quality management, and our ability to adapt to climate change and the impacts of severe weather.

4.2.2. The Forestry Commission and Natural England have both carried out studies looking at calculating the quantitative benefits of green space, for example:

A single large tree can transpire 450 litres of water per day, making urban tress an effective way of reducing temperatures. Street trees and green roofs can reduce runoff by 50% in the immediate area. (Natural England, 2014)

4.3. Sustainable drainage systems (SuDS)

4.3.1. One of the principle methods that the City Council uses to encourage the delivery of multiple benefits is sustainable drainage systems (SuDS). These are a collection of

techniques and components that manage surface water by taking into account of water quantity (flooding), water quality (pollution) and amenity and biodiversity issues.

4.3.2. SuDS mimic nature and typically manage rainfall close to where it falls. The benefits of SuDS over traditional drainage methods are:

i. Management of runoff volumes and flow rates from hard surfaces, reducing the impact of urbanisation on flooding
ii. Reduction of pollution in the runoff and hence protection or enhancement of water quality
iii. Protection of natural flow regimes in watercourses
iv. Provision of an attractive habitat for wildlife
v. Provision of opportunities for evapotranspiration from vegetation and the surface (reduction in quantity of surface water)
vi. They can be designed to be sympathetic to the environment and the needs of the local community
vii. Good SuDS create better places to live, work and play through safer and more aesthetically pleasing communities with better access to green infrastructure provision.

4.3.3. Further information is available from www.susdrain.org and www.peterborough.gov.uk/sustainabledrainage about the different types of SuDS components and what they can do. Figure 4-3 illustrate an example of a swale being used for enjoyment by school children as part of wider use of open spaces (green infrastructure). A swale is a planted shallow SuDS feature which conveys water and also allows infiltration.

Figure 4-3: "Dancing in the swale – Red Hill School Worcester (Bob Bray, 2011)

4.4. The need for a catchment based approach

4.4.1. The water environment is affected by every activity that takes place on land as well as through our actions of abstracting, using and returning water to rivers, the sea and the ground. River catchments are the natural scale to consider this aspect of the environment as within this area activities will have interlinked impacts. Coordinated action is desirable not only when managing flood risk but also when trying to address the significant pressures placed on the water environment e.g. by diffuse pollution from agricultural and urban sources or the widespread, historical alteration of channel form.

4.4.2. The Government promotes a catchment based approach, encouraging community involvement and partnership working to deliver river improvement schemes. The Department for Food, the Environment and Rural Affairs (Defra) has set out its objectives for a catchment based approach as:

i. To deliver positive and sustained outcomes for the water environment by promoting a better understanding of the environment at a local level; and
ii. To encourage local collaboration and more transparent decision-making when both planning and delivering activities to improve the water environment.

4.4.3. Peterborough will endeavour to use this approach wherever possible when delivering flood risk schemes in order to create as many other benefits from the schemes as possible.

4.5. Assessing the environmental impacts of the FMS

4.5.1. In Peterborough the scope for flood risk management actions to impact on the environment is significant. Hopefully actions will bring about improvements to and increased protection for our landscapes and aquatic environments. However with the existence of a number of nationally and internationally designated biodiversity sites in the area and the requirements of the Water Framework Directive it is prudent to undertake thorough environmental assessment of any actions suggested. Therefore alongside the FMS, the Strategic Environmental Assessment (SEA) process is being followed in line with the requirements of the European Union Directive 2001/42/EC (SEA Directive). Assessment of whether the strategy and its actions meets the requirements of the Water Framework Directive assessment and the Habitats Regulations Assessment is also being undertaken and will be incorporated into the SEA.

4.5.2. The Environment Agency are also carrying out SEA for the Anglian Flood Risk Management Plan (FRMP). This will consider cumulative impacts but will be undertaken at a high level with any very preliminary measures and actions (i.e. those recommending further study) scoped out. It has been agreed with the Environment Agency that the SEA for the FMS will not assess new Environment Agency-only schemes since these are not yet confirmed. The FMS SEA will however need to consider cumulative impacts with schemes that are already published in the Environment Agency's Medium Term Plan, such as those that were proposed in the CFMPs.

5. Objectives

5.1.1. The objectives of Peterborough's FMS are set out in table 5-1. The objectives were developed from a workshop with the Peterborough Flood and Water Management Partnership (section 6.8) where each organisation was asked what themes and outcomes they wanted to see delivered by the FMS. These objectives shape the content and intentions of the FMS.

5.1.2. It is a requirement of the FWMA 2010 that the FMS is consistent with the National Strategy. The alignment between the FMS objectives and the National Strategy objectives and guiding principles is therefore shown in table 5-1.

Table 5-1: Objectives and their consistency with the National Strategy.

FMS Objectives		**Consistency with National Strategy objectives (section 3.3.3)**	**To be delivered using National Strategy guiding principles (section 3.3.4)**
1	Improve **awareness and understanding** of flood risk and its management to ensure that the City Council, partner organisations, stakeholders, residents, communities and businesses can make informed decisions and can take their own action to become more resilient to risk.	(i) Manage risk (ii) Facilitate decision-making and action at the appropriate level (iii) Environmental, social and economic benefits	a) Community and partnerships f) Beneficiaries encouraged to invest
2	Establish **efficient co-ordinated cross -partner approaches** to flood and water management, response and recovery, sharing and seeking new resources together	(i) Manage risk (ii) Facilitate decision-making and action at the appropriate level (iii) Environmental, social and economic benefits	a) Community and partnerships b) Catchment based approach c) Sustainability e) Multiple benefits
3	Reduce flood risk to prioritised areas and strategic infrastructure, ensuring that **standards of protection** elsewhere are maintained.	(i) Manage risk	c) Sustainability d) Proportionate and risk-based e) Beneficiaries encouraged to invest
4	Improving the wider **sustainability** of Peterborough, ensuring an integrated catchment approach and proper consideration of the water environment and its benefits in new and existing town and landscapes.	(iii) Environmental, social and economic benefits	a) Community and partnerships b) Catchment based approach c) Sustainability d) Proportionate and risk-based e) Multiple benefits f) Beneficiaries encouraged to invest

5.1.3. In later chapters proposed actions and management approaches are related back to the FMS objectives to show how these will be met.

6. Roles and Responsibilities

6.1. Organisations involved in flood risk management

6.1.1. There are a number of different organisations, authorities and individuals involved in flood risk management in Peterborough. Figure 6-1 provides a quick reference guide for some of the main flood related issues that may be experienced. The principal management organisations are also discussed in this chapter, setting out what their roles and responsibilities are. A brief paragraph is also included on where the organisation's funding comes from. Funding for flood risk management schemes in Peterborough is dealt with in more detail in Chapter 9.

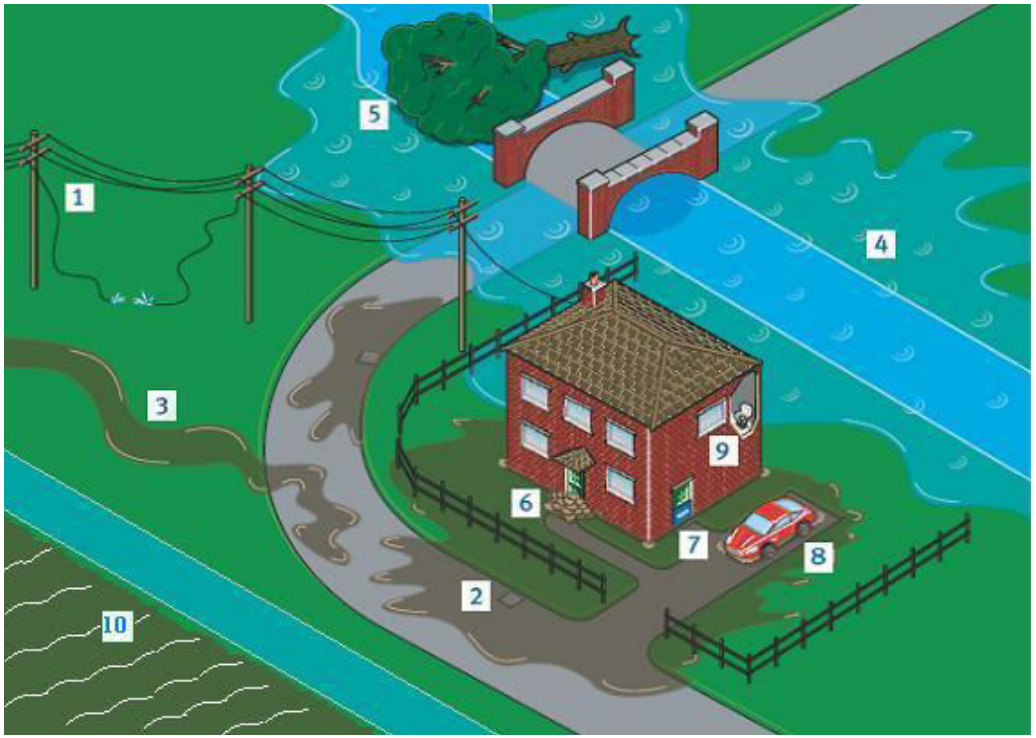
6.1.2. The organisations discussed in sections 6.2 to 6.6 are defined by the FWMA 2010 as 'risk management authorities' (RMAs) with responsibilities relating to the FMS. These are set out in table 6-1. All RMAs must also act in a manner which is consistent with the National Strategy and guidance. The other organisations discussed in this chapter have no formal duty in these respects.

Table 6-1: Risk management authorities as defined by the FWMA 2010 and the legislation under which they carry out their flood risk management functions

Organisation	**Defined as an RMA** (FWMA 2010 section 6)	**Legislation under which flood risk management functions may be exercised** (FWMA 2010, section 4)	**Duty relating to the FMS** (FMW Act 2010 sections 9,11)
Peterborough City Council (as LLFA and a highways authority)	Yes	• FWMA 2010 • Flood Risk Regulations 2009 • Land Drainage Act 1991 • Highways Act 1980	• Develop, maintain, apply and monitor • Consult the other RMAs • Act in a manner consistent with the FMS and related guidance
The Environment Agency	Yes	• FWMA 2010 • Flood Risk Regulations 2009 • Water Resources Act 1991 • Land Drainage Act 1991	• Act in a manner consistent with the FMS and related guidance[3]
Internal Drainage Boards	Yes	• FWMA 2010 • Land Drainage Act 1991	
Highways Agency (as a highway authority)	Yes	• FWMA 2010 • Highways Act 1980	
Anglian Water (as water company)	Yes	• FWMA 2010 • Water Resources Act 1991 • Water Industry Act 1991	• Have regard to the FMS and guidance

[3] When delivering their flood risk management functions as defined by section 4 (2) of the FWMA 2010.

Who to Contact?
A Quick Reference Guide



#	Structure or feature where problem is arising	Organisation to contact
1	Utilities	Your gas, electricity or sewerage supplier
2	Surface water runoff and groundwater flooding	City Council *, Anglian Water and the Highways Agency for major roads
3	Rural or farmland runoff, or overtopping from smaller watercourses	City Council, Internal Drainage Boards
4 & 5	Main River flooding and/or obstructions	Environment Agency
6	Sandbags	Builders merchant
7	Household protection	Property owner's responsibility but the Environment Agency and/or the City Council can provide advice.
8	Flood damage cover and claims	Your insurance company
9	Internal wastewater flooding	Anglian Water
10	Fenland drainage and watercourses	Internal Drainage Boards

* Responsibility actually varies between several partners so if you are unclear start by contacting the City Council.

Figure 6-1 and Table 6-2: A quick reference guide, not necessarily to who might be responsible for managing the flooding, but to which organisation is most likely to be able to help with flood related queries on specific subjects.

6.2. Peterborough City Council

As a Lead Local Flood Authority

6.2.1. Under the FWMA 2010 Peterborough City Council became a LLFA with responsibility for co-ordinating the management of flood risk from surface runoff, ordinary watercourses and groundwater. In this context the City Council has the following new responsibilities set out in table 6-3.

Table 6-3: The powers and duties given to Peterborough City Council by the FWMA 2010

Change	Notes	Power or duty?	Paragraph of Act
Local Flood Risk Management Strategy	LLFAs are required to develop, maintain, apply and monitor a strategy for local flood risk management in its area.	Duty	9
Duty to co-operate	All relevant authorities must co-operate with other relevant authorities in the exercise of their flood and coastal risk erosion management functions.	Duty	13 and 14 (4)
Power to delegate	A RMA may arrange for another flood risk management function, except for delivery of the local flood risk management strategy, to be exercised on its behalf by another RMA or a navigation authority.	Power	13 (4)
Power to request information	An LLFA and the EA may request information in connection with their flood risk management functions	Power	14
Investigating flood incidents	LLFAs have a duty to investigate flooding incidents within their area, to the extent that the LLFA considers it necessary or appropriate	Duty	19
Asset Register	LLFAs have a duty to maintain a register of structures or features which are considered to have a significant effect on flood risk and records of details about those structures, including ownership and condition as a minimum. The register must be available for inspection.	Duty	21
Contribution towards sustainable development	In exercising a flood risk management function LLFAs, IDBs and the Highways Agency must aim to make a contribution towards the achievement of sustainable development.	Duty	27
Designation powers	LLFAs, as well as the Environment Agency and Internal Drainage Boards, have powers to designate structures and features that affect flooding or coastal erosion in order to safeguard	Power	30 and Schedule 1

	assets that are relied upon for flood or coastal erosion risk management.		
Works powers	LLFAs have powers to undertake works to manage flood risk from surface runoff, groundwater or ordinary watercourse.	Power	31 and Schedule 2, section 29. Amends Land Drainage Act 1991 section 14.
Overview and Scrutiny	Include arrangements to review and scrutinise the exercise by risk management authorities of flood risk management functions which affect the LLFAs area.	Duty	31 and Schedule 2, section 54. Amends section 21 of the Local Government Act 2000
SuDS Approving Body	Once the duty has come into force, LLFAs will be designated the SuDS Approving Body (SAB) for any new drainage system, and therefore thereafter must approve, adopt and maintain any new sustainable drainage systems (SuDS) within their area which meet the legislation and the National SuDS Standards.	Duty	32 and Schedule 3
Incidental flooding	LLFAs and IDBs can carry out works that cause incidental flooding or increases in the amount of water below the ground if the works satisfy four conditions. Condition 1 – work in interest of nature conservation, cultural heritage or people's enjoyment of the environment. 2 – Benefits outweigh harmful consequences. 3 – The EA have been consulted and if applicable agreed. 4 - Other local authorities affected and owners and occupiers of land have been consulted.	Power	39

As an Emergency Responder

6.2.2. Under the Civil Contingencies Act 2004 Peterborough City Council is a Category One Emergency Responder. The City Council's role is principally about recovery after an event but the following actions are undertaken:

i. Informing and warning activities
ii. Co-operating with other emergency responders

iii. Providing rest centres
iv. Helping to rehabilitate people after an incident

As a Highways Authority

6.2.3. Under the Highways Act 1980 Peterborough City Council is classed as a Highway Authority and is responsible for the management of highways including drainage. The City Council manage the majority of Peterborough's highways and footpaths although is not technically the landowner for them. Some highways are privately owned and managed, and others are managed by the Highways Authority as part of the national network.

6.2.4. Highway drainage systems are for the primary purpose of accepting surface water runoff from roads and carriageways and the authorities' duties include the need to ensure that the flow of water is not impeded, causing flooding of the highway that could result in a breakdown of the network. Ensuring that the network can function as a whole is the priority; small scale flooding in specific locations may be less of an issue if there are alternative routes that traffic can take.

Funding

6.2.5. Peterborough City Council's funding comes from a variety of places. Government provides the most significant input in terms of grants. Unlike in the past these funds are often now not ring-fenced for any specific purpose and have to be allocated according to need. The City Council also collects a percentage of its income from Council Tax. Aside from these the City Council can borrow funds and generate funds from selling off assets that it owns (such as land) or from submitting project specific bids to Government agencies or other funding groups.

6.3. The Highways Agency

6.3.1. The Highways Agency is currently an executive agency of the Department of Transport. They are responsible for operating, maintaining and improving the strategic road network in England on behalf of the Secretary of State. The strategic road network in England is some 4,300 miles long and is made up of motorways and trunk roads, the most significant 'A' roads. In Peterborough the Highways Agency manages the A1, A1M and A47, including some but not all slip roads.

6.3.2. Part of the Highways Agency's role in managing the roads is a responsibility for managing the quality and quantity of road runoff that is collected within their network. Flood risk must not be increased by new road projects and discharges of water from the highway must not cause pollution to receiving water bodies. In line with this aim a Memorandum of Understanding with the Environment Agency has been developed to support the two agencies working together. More information about the Highways Agency's approach is available on their website.

Funding and changes to the organisation

6.3.3. At the moment Highways Agency funding comes from the Department of Transport based on a yearly business plan. It is however expected that by 1st April 2015 the Highways Agency will become a government-owned company, rather than a civil service. This is expected to change and improve the way that they work and attract funding (Department for Transport, 2013). The name of the organistion may also change.

6.4. Environment Agency

6.4.1. The Environment Agency is a non-departmental public body and has responsibilities for protecting and enhancing the environment as a whole (air, land and water), and contributing to the government's aim of achieving sustainable development in England and Wales.

6.4.2. Following the FMW Act, the Environment Agency was given the strategic overview role for all types of flooding. This involves advising Government, supporting LLFAs with data and guidance and managing the allocation process for capital funding. In addition to this the Agency retains its existing responsibility for the management of flood risk from Main Rivers, the sea and reservoirs. This includes providing advice to planning authorities on development in areas of high flood risk. The Agency does not provide advice on other sources of flood risk as this is the responsibility of the Local Planning Authority.

6.4.3. For designated Main Rivers and any associated designated assets (as agreed by the Government Department for the Environment, Food and Rural Affairs [Defra] and the Environment Agency), the Environment Agency has permissive powers to carry out maintenance, improvement and flood defence works. This includes being responsible for controlling works which could affect Main Rivers or flood defences; this is done through the consenting process (see section 10.6.15). The overall responsibility for maintenance of Main Rivers (as with any watercourse) does however lie with the landowner (see section 6.13 on riparian owners).

6.4.4. The Environment Agency is the lead organisation responsible for coastal flood risk management and erosion, including tidal flooding and also the enforcement authority for reservoirs in England and Wales that are designated high risk and hold more than 25,000 cubic metres of water. While the safety of reservoirs is the responsibility of the owner, the Environment Agency has responsibility for enforcing safety, maintaining a register of reservoirs and ensuring that flood plans are put in place.

6.4.5. Alongside Local Authorities and the Emergency Services the Environment Agency is a Category One Emergency Responder under the Civil Contingencies Act 2004. Their role includes providing coastal and river flood warnings and supporting other emergency responders in the event of flooding.

Funding

6.4.6. The Environment Agency is a national organisation with an annual operational budget of over a £1 billion. Its funding is split across many different areas of environmental work, but approximately half is spent on flood risk management. This includes the construction of new flood defences, the maintenance of the river system and existing flood defences together with the operation of a flood warnings system and the management of the risk of coastal erosion. The vast majority of the funding for flood defence comes directly from the Department for the Environment, Food and Rural Affairs (Defra).

6.5. Internal Drainage Boards

6.5.1. Over forty percent of Peterborough's land area is classified as being part of the national Fens character area. This is an artificially drained landscape and is part of the wider area of the Fens which overlaps with the local authority boundaries of

Lincolnshire County Council, Norfolk County Council, Cambridgeshire County Council and Suffolk County Council. Land drainage authorities called IDBs were established within the Fens because of the special water level and drainage management needs existing within the area. These land drainage authorities are autonomous public bodies. Peterborough has four land drainage authorities of this type operating within its fenland area, three classified as independent IDBs and one classified as Commissioners. Throughout the FMS the term Internal Drainage Board (IDB) is used to refer to all four of these organisations managing water levels within Peterborough's fenland. Appendix C provides a map of the management area of each IDB.

North Level District Internal Drainage Board (NLD IDB)

6.5.2. NLD IDB is a land drainage authority responsible for the drainage and evacuation of surplus water from 33,000 hectares of land. The NLD IDB Board is responsible for the improvement and maintenance of some 613 kilometres of drains within the area and for the operation of 12 pumping stations.

Welland and Deepings Internal Drainage Board (W&D IDB)

6.5.3. Welland and Deepings IDB is responsible for supervision over all aspects of land drainage within their district (other than Main River). They have regulatory powers in and adjacent to drainage systems and undertake improvements, maintenance and operation of their flood management assets. Their area extends to some 32,400 hectares and stretches from just north of Peterborough to south of Kirton near Boston.

Whittlesey and District Internal Drainage Board

6.5.4. This IDB is responsible for the drainage and evacuation of surplus water from over 8,300 hectares of land. The Board is managed by the Whittlesey Consortium of IDBs. Strategic functions such as responses to planning applications and liaison with local flood risk management strategies is carried out on behalf of Whittlesey and District IDB by the Middle Level Commissioners.

Middle Level Commissioners (MLC)

6.5.5. The Middle Level Commissioners are a statutory body with powers and duties under general and local legislation relating to flood risk management and navigation. The Commissioners maintain an arterial system of watercourses and associated apparatus. The Commissioners act as consultants for the Whittlesey and District IDB.

Funding

6.5.6. Each of the aforementioned drainage authorities is funded by rates paid by the landowners in their area. This can be broken down into Drainage Rates and Special Levies. Drainage rates are paid by agricultural landowners direct to the IDB based on the area of their property. Where land in the IDB's district is not in agricultural use, the owner instead pays their levy to Peterborough City Council as part of their Council Tax. The relevant amount is then separated out from the Council Tax and paid to each IDB. This is known as a Special Levy.

6.6. Anglian Water Services Ltd

6.6.1. Anglian Water (AW) is the water and sewerage undertaker for the Peterborough area and has a statutory obligation to supply water and wastewater services to its customers. AW currently has the responsibility to effectually drain their area and maintain their foul, surface and combined public sewers.

Funding

6.6.2. Funding for water companies comes principally from water bills that residents and businesses pay. Larger investment can also come from shareholders and investors. Ofwat (the Water Services Regulation Authority) agrees the cost of water bills for each water company as part of a regular five year review process called the Periodic Review process. Periodic Review 2014 is currently underway to set the management plan for water companies for the period 2015 to 2020, also known as Asset Management Plan period 6.

6.7. Local Resilience Forum

6.7.1. The Cambridgeshire and Peterborough Local Resilience Forum (CPLRF) is responsible for developing multi-agency emergency management arrangements in accordance with the Civil Contingency Act, 2004 within the County of Cambridgeshire. The CPLRF covers an area of over 2000 square miles and serves a combined population of approximately 805,000 people. Membership consists of five district councils, one unitary authority (Peterborough) and Cambridge County Council.

6.7.2. The CPLRF have identified a number of risks with Cambridgeshire which they publish within the CPLRF Risk Register. The top risks for the county include severe weather, flooding events and pandemic influenza.

6.8. Peterborough Flood and Water Management Partnership

6.8.1. The primary partnership arrangement covering the Peterborough area is the Peterborough Flood and Water Management Partnership (the FloW Partnership). This was originally established in 2009 under the name Peterborough Flood Risk Partnership. Its members include the organisations in sections 6.2 to 6.7. The objectives of the FloW Partnership are:

a) Steer the production of the FMS, ensuring a holistic approach to all sources of flood risk, the different roles and aims of partners, local resilience management and the water environment.
b) Implement in partnership the action plan of the FMS to ensure we manage the risk of flooding, improve our sub catchment data and understanding, and enable our communities to be more resilient.
c) Enable and support delivery of projects within the Nene and Welland Integrated Catchment Plans.
d) Influence planning policy and guidance for developments on all water management issues including reviewing and support the development of local contributing reports and plans such as Strategic Flood Risk Assessments. This includes identification and exchange of appropriate data sets in support of any activity.

e) Support the implementation of sustainable development through the establishment and workings of the Sustainable Drainage Systems Approving Body.
f) Coordinate high-level management and maintenance of flood risk assets, features and structures to ensure effective flood risk management.
g) Promote the dissemination of information about flood risk, water efficiency or other relevant water topics to householders, businesses and other organisations.
h) Take advantage of partnership funding and financing opportunities including Section 106 agreements and Community Infrastructure Levy (when introduced), preparing bids to external sources, and making the most of match and in-kind funding;
i) Explore opportunities for collaborative research
j) Liaise with and support the preparation of emergency plans by the Local Resilience Forum to ensure that management of incidents such as drought and flooding can be handled appropriately

6.9. Anglian Northern Regional Flood and Coastal Committee

6.9.1. Section 23 of the FWMA 2010 required that previously existing Regional Flood Defence Committee were updated and re-launched as Regional Flood and Coastal Committees (RFCCs). The purpose of the RFCCs is to bring together members appointed by LLFAs and independent members with relevant experience to:

a) ensure there are coherent plans for identifying, communicating managing flood risk across catchments and shorelines;
b) promote the funding of schemes that benefit local communities and represents value for money
c) represent the whole of the Northern are regardless of local authority boundaries
d) provide a link between the Environment Agency, LLFAs, other risk management authorities and other relevant bodies
e) engage constructively with and offer advice to the Agency having developed its own view as to the flood and coastal risk erosion management needs within its region informed by local knowledge, contacts with other risk management authorities and engagement with risk management planning. This includes providing consent for the Agency's regional programme and agreeing changes to Local Levy rates.

6.10. Parish Councils and Volunteer Flood Wardens

6.10.1. Some Parish Councils and residents associations engage actively in flood risk management, appointing a local flood warden to be a main point of contact between the residents of their area, the City Council and the Environment Agency. The extent of their role is decided by the groups/individuals but often includes staying up to date with local flood risk management news; helping to gather a picture of flood risk in their area; raising awareness among their neighbours of risk and of what to do during an emergency and being the principal emergency contact during flood events.

6.11. Welland Valley Partnership

6.11.1. The Welland Valley Partnership was formed in 2011 in response to the Government's desire to set up 10 'pilot catchments' to work in partnership to

improve rivers and bring about wider environmental and social benefits. The pilots were intended to *"provide a clear understanding of the issues in the catchment, involve local communities in decision making by sharing evidence, listening to their ideas, working out the priorities for action and seeking to deliver integrated actions that address local issues in a cost effective way and protect local resources" (Richard Benyon MP, the then Minister for Natural Environment and Fisheries).* Since the pilot completed, the partnership, which includes local authorities, businesses, charities and interest groups based around the River Welland catchment, has continued to attract new members and implement improvement schemes.

6.12. River Nene Regional Partnership

6.12.1. The River Nene Regional Partnership (RNRP) was originally established in 2004 to co-ordinate green infrastructure activities (planning, economic development, regeneration and leisure) in Northamptonshire and along the Nene. It is now an independent Community Interest Company which develops, enables and implement green infrastructure projects at a sub-regional level. The RNRP has produced the Nene Catchment Plan, an integrated management plan for the River Nene from its source to its tidal limit. This was also one of the Government's original 10 catchment pilots.

6.13. Riverside landowners

6.13.1. A landowner with a water body (e.g. a lake or river) running through or alongside their property is known as a 'riparian owner' as they will own all or part of the water body in the absence of anything in their conveyancing documents to state otherwise. If a watercourse is the boundary to the land then a riparian owner will normally own, and therefore have maintenance responsibilities, up to the centre line of the watercourse.

6.13.2. Riparian owners' rights are modified by other duties to the community and to the environment, but in general riparian owners have rights to:

a) protect their property from flooding
b) protect their banks from erosion

6.13.3. In many cases consent is required from a relevant drainage authority (see section 10.6.15) for any works other than routine maintenance and cleansing (section 23 of the Land Drainage Act 1991) and from the Environment Agency for abstraction.

6.13.4. Riparian owner responsibilities include:

a) a duty to their upstream and downstream neighbours;
b) accepting water from an upstream neighbour and allowing it to transfer to a downstream neighbour;
c) not causing or perpetuating a nuisance, such as causing obstruction to the flow of water. It is important that access is preserved to the banks for maintenance and safety purposes through controlling vegetation and considering appropriate locations for fencing and access tracks;
d) ultimate responsibility in perpetuity for the water body.

6.13.5. The Environment Agency, Internal Drainage Boards and the Lead Local Flood Authority share certain powers under the Land Drainage Act 1991, for enforcing riparian responsibilities.

6.13.6. The comprehensive guidance document *Living on the Edge* has been prepared by the Environment Agency for riparian owners and can be found on the websites of both the Environment Agency and Peterborough City Council. Landowners with queries are encouraged to contact the Environment Agency, their local Internal Drainage Board or the City Council.

7. The Risk to Peterborough

7.1. Introduction

7.1.1. This chapter looks at each type of flood risk that Peterborough is susceptible to and explains how the types of flooding differ, the broad distribution and level of risk in Peterborough and how to find out more. This chapter is predominantly concerned with flooding caused when the received rainfall or river flows exceeds the design capacity of the drainage and flood risk management systems.

7.1.2. As well as natural flood risk from weather systems flooding can happen anywhere due to operational issues such as blockages, bursting of pipes or failures of defences. It is harder to predict the likelihood, location and impacts of flooding caused by operational issues and these can only be prevented by appropriate maintenance of assets. Maintenance is discussed in chapter 10. It is important to note that flooding resulting from breaches or bursting of pipes can have a more significant impact than the gradual overtopping of watercourses or surcharging of sewers because the impacts can occurs very suddenly, creating a flow of water at speed.

7.2. What is risk?

7.2.1. In order to understand flood risk the meaning of 'risk' needs to be clear. Risk is the likelihood of a hazard occurring multiplied by the impact of the hazard when it occurs.

Risk = Likelihood x Impact

7.2.2. With flooding it is normally the likelihood of it occurring which is discussed. This likelihood is stated in terms of **annual probability**. The most commonly discussed probabilities are shown in table 7-1 below:

Table 7-1: Common flood related probabilities

Annual probability	Annual probability as a fraction	Example
3.3%	1 / 30	The largest flood event for which surface water sewers are designed
1%	1 / 100	The largest flood event for which Main Rivers are designed
0.5%	1 / 200	The largest flood event for which defences on the tidal Nene are designed to defend against
0.1%	1 / 1000	The largest flood event that the banks of the Nene Washes banks are designed to contain

7.2.3. In the past flooding has been described using yearly return periods leading people to believe that a 1 in 100 flood will only happen once every 100 years. Unfortunately this is incorrect as the risk is a 1 in 100 chance of the event happening every year. It could happen twice in a year, in the same way that you could potentially have two wins on the lottery in a year.

7.3. Standards of protection for defences

7.3.1. In this chapter you will also find mention of standards of protection of various flood defences. The standard of protection (SoP) of a drainage system or flood defence is the level up to which it is expected to provide protection against a flood event.

7.3.2. Most Main River defences are built to have an SoP of 1 in 100 (1%). This means that they would provide protection against flood events that have an annual occurrence of up to 1 in 100 (1%). If larger and less likely flood events occur, these could overtop these defences.

7.4. Differing probabilities for river flood events and heavy rainfall events

7.4.1. A rainfall event of annual probability 1 in 100 (1%) will not necessarily cause a river flood event of annual probability 1 in 100 (1%). Rainfall landing in a catchment can flow overland into sewers or rivers or filter through the ground to join groundwater supplies. The complexity of different river catchments and landscapes means that the probabilities of rainfall events and river flooding are not comparable.

7.5. Rating the different types of flood risk for Peterborough

7.5.1. The types of flooding described in this chapter are laid out in order of the organisations responsible for co-ordinating the management.

7.5.2. The risk from different types of flooding varies significantly across Peterborough depends on the landscape, the proximity to watercourses, the style of local drainage system and what the receptors of the flooding would be. There are areas in Peterborough where the risk from one source of flooding is ‘High’. However, to help give an overall perspective of flood risk in Peterborough, each type of flooding has been rated according to the average likelihood and the average expected impacts of that type. This is set out in table 7-2 based on a risk matrix calculation.

7.5.3. Appendix D show the categories for likelihood, impact and risk that were used for this calculation. The likelihood categories have been developed based on the Environment Agency’s classification bands for flood risk. Where the annual probability of flooding from a source spans more than one band, the highest likelihood band has been represented.

7.5.4. The following risk table and this chapter do not include flooding caused by operational issues such as breaching, bursting pipes or damaged defences.

7.5.5. The risk from foul-only sewers is also not included in the table below as the likelihood of properties in Peterborough having capacity issues water companies have the resolution of these issues as a very high priority as dictated by Ofwat.

Table 7-2: An overall view of the level of flood risk in Peterborough

RISK INFORMATION						WARDS THAT THE RISK IS MOST ASSOCIATED WITH																						
SOURCE OF FLOODING	PAGE	RESPONSIBLE AUTHORITY	LIKELIHOOD	IMPACT	RISK	Barnack	Bretton North	Bretton South	Central	Dogsthorpe	East	Eye & Thorney	Fletton & Woodston	Glinton & Wittering	Newborough	North	Northborough	Orton Longueville	Orton Waterville	Orton with Hampton	Park	Paston	Ravensthorpe	Stanground Central	Stanground East	Walton	Werrington North	Werrington South	West
Sea (coastal)	39	EA	0	N/A	No risk (0)																								
Reservoir		EA	1	5	Low (5)	✓			✓			✓	✓	✓	✓		✓	✓	✓					✓					
Main River - tidal waters (Nene only)	39	EA	1	2	Low (2)						✓	✓																	
Main River – non tidal		EA	4	3	High (12)		✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓		✓	✓	✓	✓
Combined Nene Event (during Nene tide lock with Washes full)		EA, IDB	2	5	High (10)				✓		✓			✓				✓	✓					✓					✓
IDB pumped drainage catchments		IDB	4	1	Low (4)	✓						✓		✓	✓		✓												
Ordinary watercourse		PCC	4	1	Low (4)	✓	✓	✓	✓	✓	✓		✓	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Groundwater		PCC	3	2	Medium (6)	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
Surface runoff (including overflow from gullies and surface water sewers)		PCC and AW	5	1	Low (5)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sewer - combined foul and surface water		AW, PCC	5	2	High (10)				✓				✓								✓			✓					✓
Two or more sources e.g. Main River and surface water runoff		EA, PCC, AW, IDB	4	3	High (12)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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7.6. Coastal flooding

7.6.1. In the Anglian Region coastal flooding occurs particularly when storms in the North Sea coincide with spring tides, causing the overtopping of coastal sea defences. This occurred in 1953 in East Anglia as well as in 2013. While all of Peterborough's risk management authorities would give assistance during these events, Peterborough itself is not at risk from the coastal flooding.

7.7. Reservoir flooding

7.7.1. The likelihood of Peterborough flooding from large raised reservoirs (ones that hold over 25,000 cubic metres of water – equivalent to approximately ten Olympic sized swimming pools) is very very low. Flooding would need to happen either from the reservoirs either being overtopped (gradual) or failing (catastrophic). The former is unlikely because the water level of large reservoirs is carefully managed and water can be transferred in and out through pipe and Main Rivers systems. The latter is unlikely because the Reservoirs Act requires that, regardless of the level at which a large reservoir might overtop, there must be no risk of catastrophic breach from in an event with an annual probability of occurrence of less than 1 in 10,000 (0.01%). All large reservoirs must be inspected and supervised by reservoir panel engineers. There has been no loss of life in the UK from reservoir flooding since 1925.

7.7.2. While flooding is very unlikely, if a reservoir dam did fail, a large volume of water would escape at once with little or no warning. Therefore to ensure that this can be planned for by emergency responders and those living near reservoirs, the Environment Agency produces a map show the extent of flooding that could occur if a reservoir failed. This map can be found on their website. The large reservoirs in and around Peterborough are listed in table 7-3:

7.7.3. There are other smaller reservoirs in Peterborough that are privately owned e.g. by farmers and landowners to provide water supply for irrigation. These are not subject to as stringent legislation.

Table 7-3: Large reservoirs in and around Peterborough

Reservoir	Type of reservoir	Bank name if relevant	Standard of Protection (SoP) against overtopping	Standard of protection against catastrophic breach
Nene Washes (also referred to the Whittlesey Washes to distinguish them from the Nene Washlands in Northampton)	Flood storage	South Barrier Bank	Mainly 1 in 1000 (0.1 %) 1 in 10,000 (0.01%) near Eldernell	1 in 10,000 (0.01%)
Rutland Water	Water supply	-	1 in 10,000 (0.01 %)	1 in 10,000 (0.01%)
Burghley House Lake	Amenity	-	1 in 1000 (0.1 %)	1 in 10,000 (0.01%)
Eyebrook	Used to supply water to Corby steel works. Now trout fishery	-	1 in 1000 (0.1 %)	1 in 10,000 (0.01%)

Reservoir	Type of reservoir	Bank name if relevant	Standard of Protection (SoP) against overtopping	Standard of protection against catastrophic breach
	and nature reserve.			
Crowlands Cowbit Washes	Flood storage	-	1 in 1000 (0.1 %)	1 in 10,000 (0.01%)
Deene Lake	Private lake	-	1 in 1000 (0.1 %)	1 in 10,000 (0.01%)
Pitsford	Water supply	-	1 in 10,000 (0.01 %)	1 in 10,000 (0.01%)

Figure 7-1: Man fishing at Rutland Water reservoir. Source: Anglian Water.

7.8. Tidal Main River flooding

7.8.1. Peterborough is at risk from tidal flooding on the Nene. There are however measures in place to manage and minimise this risk. The Dog-in-a-Doublet sluice, shown in figures 7-2 and 7-3, provides a tidal limit, with the gates being closed at high tides to prevent water from entering Peterborough city centre from the downstream end of the Nene. East of the sluice either side of the tidal stretch of the River Nene the flood defences also have a standard of protection of 0.5% which means they protect against a flood event that has a probability of occurring of 1/200 in any one year.

7.8.2. The tidal limit on the River Welland is at Fulney Lock and the Marsh Road Sluice, downstream of Spalding. In Peterborough there is no risk of tidal flooding from the Welland.

Figure 7-2: Dog in the Doublet sluice during a very high tide.
Source: Peterborough City Council

Figure 7-3: Dog in the Doublet sluice when the tide is not so high.
Source: Environment Agency.

1947 Case Study
(The 1947 Flood, 2014 and Dr Mark Saunders, 1998)

The winter of 1947 was extremely cold with strong gales and heavy snowstorms. When temperatures rose in March the snow thawed quickly. The ground was still frozen so the snow melt could not infiltrate and instead ran towards streams and rivers. This coincided with the peak of a spring tide and the high water levels combined with very strong winds pounded flood defences. On 19th March 1947 the water level in the River Nene is reported as having been 2.4 metres above average at Town Bridge in Peterborough. At Wansford data from the Environment Agency and the Institute of Hydrology indicates that the flood flow peak was approximately 255 cubic metres per second.

A breach in the flood defences of Cowbit Washes north of Crowland occurred on 21st March. Water inundated the northern areas of Peterborough and reaching the north of Thorney and Eye Green.

Figures 7-4 (left): It looks like the photographer was standing on a causeway in the middle of a large lake but the view is actually looking south along Crowland Road. The road was previously under water. Credit: John Kemmery.
Figure 7-5 (right): The right-hand image is the same view in 2013. Credit: www.eyepeterborough.co.uk

Flooding occurred in many areas across Peterborough. Flood Zone 2, illustrated in the Environment Agency's Flood Map for Planning, is generally understood to closely follow the outline of flooding in Peterborough in 1947.

Since 1947 significant work has been carried out to upgrade defences in the Fens including the installation of more powerful pumps.

7.9. Main River flooding (non-tidal)

7.9.1. Certain watercourses in England have been designated by the Government Department for Food and Rural Affairs (Defra) as 'Main Rivers'. A Main River is defined as a watercourse marked on a Main River map. The larger arterial watercourses are normally designated but some smaller watercourses have also been included because the designation was agreed on the basis of flood risk rather than on size. The Environment Agency have powers to work on Main Rivers for the purposes of managing flood risk. It is important to note however that the ultimate responsibility for maintenance of any river sits with the landowner.

7.9.2. Figures 7-6 and 7-7 illustrate the risk to property across the whole of the Welland and Nene catchments from a Main River flood event with an annual probability of 1 in 100 (1%).

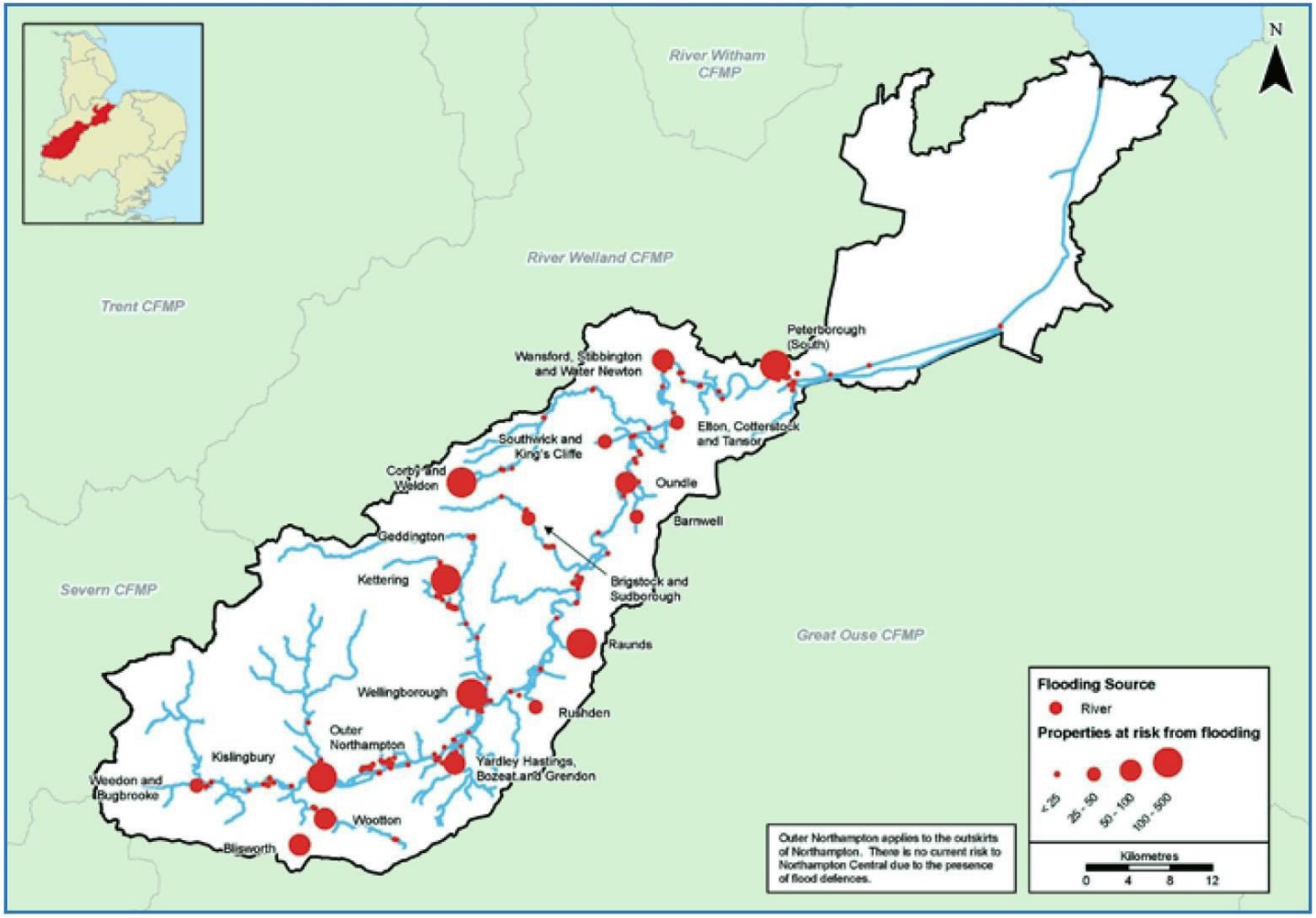

Figure 7-6: Map showing the extent and location of the Nene and, taking into account current flood defences, the areas with properties at risk of Main River flooding from a 1% probability river flood.

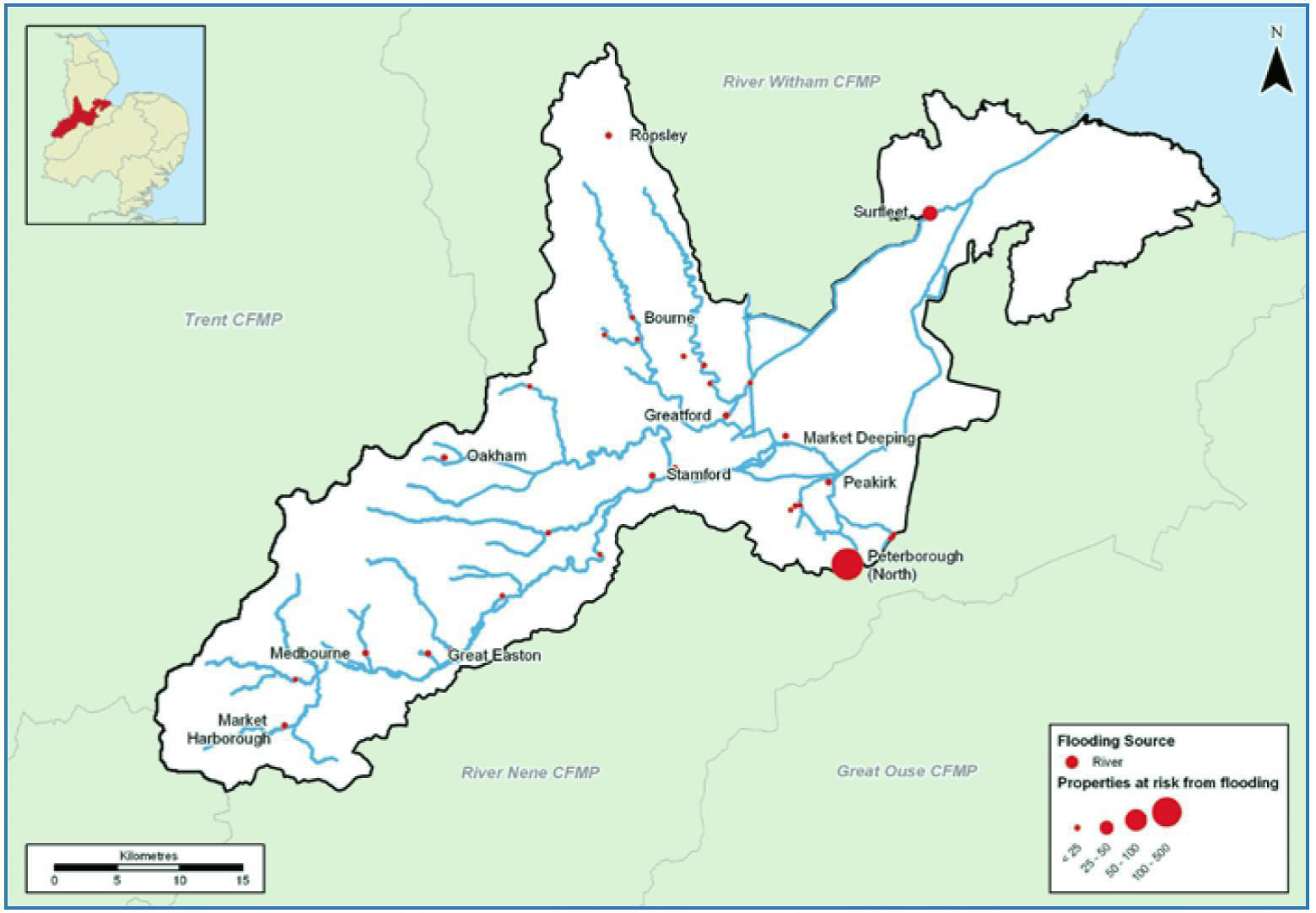

Figure 7-7: Map showing the extent and location of the Welland and, taking into account current flood defences, the areas with properties at risk of Main River flooding from a 1% probability river flood.

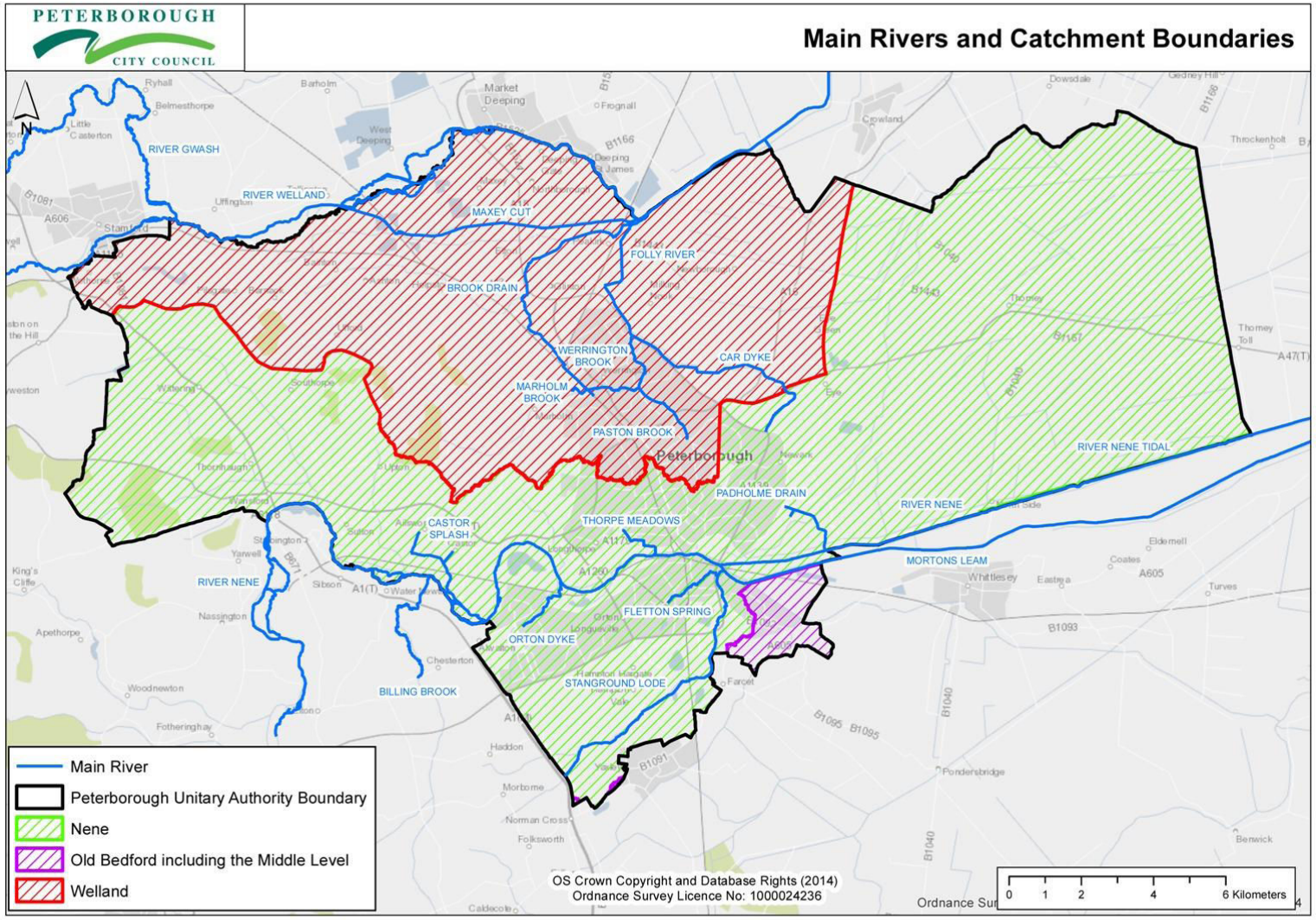

Figure 7-8: Main Rivers and catchment boundaries

7.9.3. Peterborough has 17 Main Rivers, listed below and illustrated in figure 7-8.:

i. Billing Brook
ii. Brook Drain
iii. Castor Splash
iv. Car Dyke
v. Fletton Spring
vi. Folly River
vii. Marholm Brook (downstream of Belham Wood only)
viii. Maxey Cut
ix. Mortons Leam
x. Orton Dyke
xi. Padholme Drain
xii. Paston Brook
xiii. River Nene (Non-tidal from Northamptonshire into Peterborough up to the Dog-in-a-Doublet sluice. Tidal downstream from the sluice gate.)
xiv. River Welland
xv. Stanground Lode
xvi. Thorpe Meadows
xvii. Werrington Brook

7.9.4. Areas at risk of flooding from Main Rivers are usually those within a certain distance from the river itself with risk reducing further from the channel. The area immediately next to a river where the river is expected to flood, or where it would flood if there were not defences, is called floodplain. The size of the floodplain depends on the size and flow of the river and the surrounding landscape.

7.9.5. For many of the watercourses in Peterborough the standard of protection they provide is given by the size and shape of the river, its banks and the level of maintenance undertaken. However some Main Rivers also benefit from formal flood defence structures. For example, alongside the Nene Washes the River Nene has a design standard of protection (SoP) of 1 in 200 (0.5%) created by the formal flood defence embankments on either side of the river channel. Tables 7-4 and 7-5 below give the standard of protection for formal flood defences in Peterborough within the Nene and Welland catchments. This is based on information held within the National Flood and Coastal Defence Database.

Table 7-4: SoP for formal Main River defences within the Nene Catchment

Defence type	Watercourse	Standard of Protection (SoP)
Raised (man-made) river embankments	River Nene north bank: Fitzwilliam Bridge to Dog in a Doublet	1 in 100 (0.1%)
Raised (man-made) river embankments	River Nene Cradge Bank (southern bank): Fitzwilliam Bridge to Dog in a Doublet	1 in 100 (0.1%)
Sea defence (man-made) tidal embankments	River Nene both banks: Dog in a Doublet to Halls Farm	1 in 150 (0.67%)
Raised (man-made) embankment - designated reservoir embankment serving the Nene/Whittlesey Washes reservoir	South Barrier Bank	1 in 1000 (0.1 %)

Table 7-5: SoP for formal Main River defences within the Welland Catchment

Defence type	Watercourse (alphabetical order)	Standard of Protection (SoP)
Raised (man-made) river embankments	Car Dyke western bank: Werrington Bridge Road to opposite Hawkshead Way	1 in 50 (2%)
Raised (man-made) river embankments	Car Dyke eastern bank: Werrington Bridge Road to Whitepost Road	1 in 50 (2%)
Raised (man-made) river embankments	Folly River both banks: Peakirk Bridge to Peakirk pumping station	1 in 100 (1%)
Raised (man-made) river embankments	Maxey Cut north bank: Loham Sluice to confluence with River Welland	1 in 100 (1%)
Raised (man-made) river embankments	Maxey Cut south bank: Loham Sluice to Peakirk Viaduct	1 in 100 (1%)

Find out about the risk of flooding in your area from Main Rivers

7.9.6. The Environment Agency produces two different maps that can be used when looking at flood risk from rivers and the sea. These maps include the risk of flooding from tidal events (section 7.8), Main Rivers and IDB Fen ordinary watercourses (section 7.10).

Flood Maps

To view the maps described below and the risk for your area please visit:
http://maps.environment-agency.gov.uk/

7.9.7. **Risk of Flooding from Rivers and the Sea map**- This map shows the actual risk of flooding on a scale of very low, low, medium and high as well as the flood extents. The map takes flood defences and management actions into account. However please note that flood defences can be overtopped or fail (e.g. conditions greater than the risk that the defence was designed for or if the defences are in poor condition). Therefore some areas behind defences are still shown as having a level of risk. The map uses the following risk bands:

i. High – each year there is a chance of flooding of greater than 1 in 30 (3.3%).
ii. Medium – each year there is a chance of flooding of between 1 in 30 (3.3% and 1 in 100 (1%)
iii. Low – each year there is a chance of flooding of between 1 in 100 (1%) and 1 in 1000 (0.1%)
iv. Very low – each year there is a chance of flooding less than 1 in 1000 (0.1%)

7.9.8. **Flood Map for Planning (Rivers and the Sea)** - This map is designed for use in the planning system when allocating development to appropriate sites and when assessing submitted applications. The map does not show the presence of defences because of the risk that these can fail or be overtopped and the need for

development to consider lower risk areas where minimal flood risk management works are needed before considering higher risk development sites. The Flood Map for Planning shows the flood extents possible from a flood event of annual probability:

i. of up to a 1 in 100 (1%). This is often referred to as Flood Zone 3.
ii. of up to 1 in 1000 (0.1%). This is often referred to as Flood Zone 2.
iii. less than 1 in 1000 (0.1%). This is often referred to as Flood Zone 1 and is considered to be the area of lowest and minimal risk.

Case Study – 1998
(Met Office, October 2012)

At the start of Easter 1998 (9-10th) April a stationary band of heavy rain led to saturated ground and excessive surface water runoff. On Good Friday levels in the Nene were very high, with the flood flow peak at Wansford being approximately 200 cubic metres per second. 18 homes were flooded from the Nene in a variety of locations and many roads across Peterborough were flooded from surface water. Two days later on Easter Sunday 100 homes flooded from the Thorpe Meadows watercourse, a smaller Main River. This was due to the effect of significant local rainfall and surface water entering the watercourse from the Longthorpe catchment of Peterborough, and the watercourse not being able to discharge out into the River Nene. Since this event a flood defence wall has been installed to protect properties from overtopping of Thorpe Meadows watercourse.

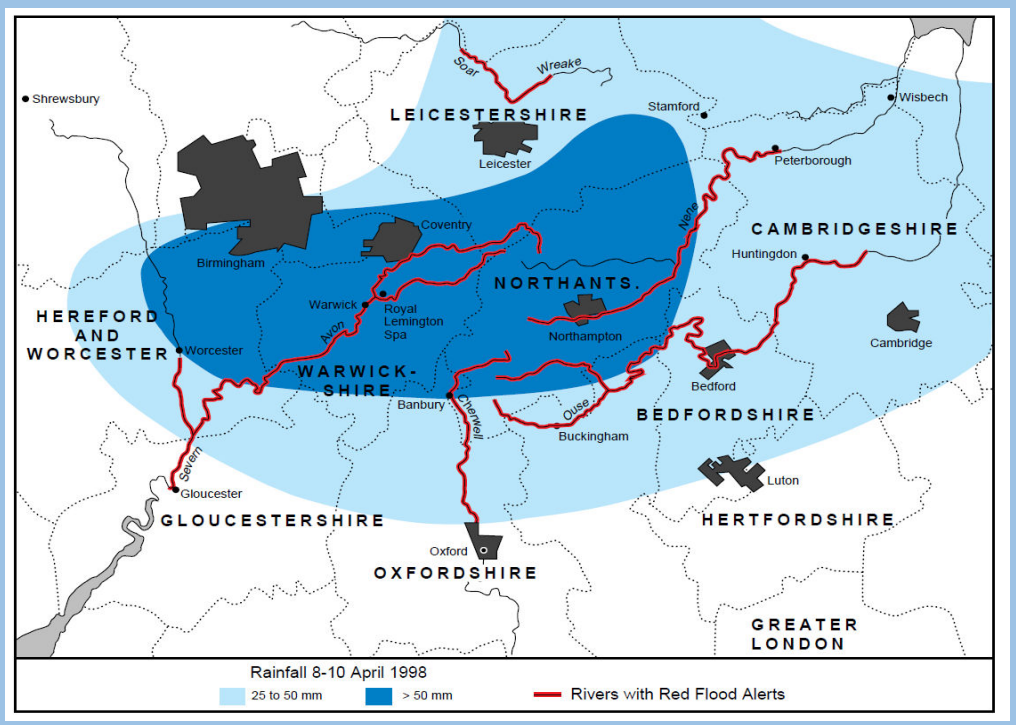

Figure 7-9: Map showing the contours of the heaviest rainfall for the three day period 8-10 April 1998, together with the rivers put on Red Flood Alert by the UK Environment Agency, over Easter 1998. (Saunders, 1998).

7.10. Internal Drainage Board watercourses

7.10.1. The Fens is managed by a large grid-like network of open watercourses (classed as ordinary watercourses) which carry water from principally agricultural fields out towards downstream tidal sections of the Nene and Welland. The land is relatively flat with the gradient across the land to the watercourses being only 6 inches to 1 mile (1 centimetre to 106 metres). Therefore the movement of water is due to the presence of large diesel and electric pumps within the network. These are housed in pumping stations as shown within figures 7-10 and 7-11.

Figures 7-10 and 7-11: Cross Guns Pumping Station inside (left) and outside (right). Source: North Level District IDB

7.10.2. Protection for the Fens is effectively provided on three different levels; primary coastal defences (remembering that IDB districts extend much further towards the Wash than the boundary of Peterborough City Council); Main River defences and flood risk management assets e.g. on the Welland and Nene; and the network of IDB watercourses, pumping stations and other associated water level management structures. Therefore Peterborough's Fens effectively have three different levels of risk. In order of likelihood of occurrence these are:

a) the risk of individual ordinary watercourses overtopping. *Probability < 1 in 50 (2%) - event is not severe.*
b) the risk of Main River defences being locally overtopped. *Probability < 1 in 100 (1%);*
c) the risk of complete system failure due to an 'combined high tide and river flow event', where a spring tide in the North Sea coincides with intense rainfall in Peterborough and high river levels from upstream. *Probability < 1 in 200 (0.5%) - event is more severe.* This third type of flood risk event is discussed in section 7.16.

7.10.3. The standard of protection of the IDB systems, including the ordinary watercourses and related infrastructure is known to be at least 1 in 50 (2%) i.e. the watercourses are not expected to overtop in an event of lower probability than this. However given investment in the network in previous years it is believed that these systems actually has a higher standard of protection of approximately 1 in 75 (1.33%). Drainage district modelling is planned in order to confirm this.

7.10.4. The intensity of rainfall is more of a problem for IDB watercourses than the length of the rainfall period. For example in January 2014 Peterborough experienced four times the average expected monthly rainfall but this total was distributed over the whole month and the IDB pumps could continue to pump the water away. This

increases the cost of the water level management (more pumps need to be used for longer) but is well within the capacity of the system. During a very heavy rainfall event all of the IDB pumps would need to be operating and if the intensity was greater than that of a 1 in 100 (1%) probability rain event the watercourses could be overtopped in some locations. This would cause localised flooding in some parts of the district but is unlikely to cause a complete failure of the system as intense rainfall tends to be very localised.

7.10.5. It should be noted that risk to power supplies is an important factor in protecting our fen areas as IDB systems depend on this. To increase their resilience they have both electric and diesel pumps and these are serviced regularly.

7.10.6. Due to the close linkages between Main River flooding and ordinary watercourse flooding in the Fens, flood risk from IDB ordinary watercourses is included in the Environment Agency's Flood Maps for Rivers and the Sea described on page 45.

7.10.7. As mentioned in section 7.9 the Main Rivers protecting Peterborough's IDB districts have a 1 in 200 (0.5%) standard of protection.

7.11. Ordinary watercourse flooding

7.11.1. Any river not designated as a Main River is an ordinary watercourse. Ordinary watercourse flooding can be caused when heavy rainfall results in water overtopping the banks of the channel on to surrounding land.

7.11.2. In Peterborough there are three types of ordinary watercourse:

i. Those owned by principally agricultural landowners in the Fens and managed as part of the IDB network.
ii. Those owned and managed by private landowners. The exact number of these drains present is not recorded. This is in part due to the broad definition of what a watercourse can be.
iii. Those where maintenance is undertaken by City Council. This could be either because the Council is the landowner (these watercourses are known as CRA Dykes) or where there is a private landowner but due to the associated flood risk, the Council historically agreed to take on management (these watercourses are known as Parish Dykes). In total the Council has 55 ordinary watercourses under its management.

7.11.3. Flood risk from IDB ordinary watercourses in the Fens is covered in the previous section (section 7.10).

7.11.4. No known modelling or mapping of the risk level from the ordinary watercourses as listed in ii) to iii) has been undertaken. The action plan includes an action to do further mapping work for these watercourses and this is also discussed further within chapter 10.

7.11.5. The City Council has no records of flooding caused by ordinary watercourses on its own land. Flooding from Parish Dykes has occurred from Racecourse Drain in Fengate. In the past flooding has occurred from watercourses that were previously classed as ordinary watercourse, but these have since been designated as Main Rivers due to the level of risk; Brook Drain, Marholm Brook and Thorpe Meadows.

7.12. Surface runoff / surface water

7.12.1. Peterborough is susceptible to flooding from surface water runoff. This generally results from very intense rainfall exceeding the capacity of local drainage networks (whether sewers, ordinary watercourses or other drainage features such as lakes) and therefore flowing across the ground. Peterborough has also experienced flooding in these two opposing situations:

i. sudden or high volumes of melting snow cause surface runoff which exceeds the capacity of the local drainage system. If the ground is frozen then minimal water can infiltrate naturally in these conditions which can make surface water flooding worse.

ii. The ground is very hard and dry from lack of rainfall (e.g. in drought periods). This also makes the ground solid and reduces the ability of rainwater to infiltrate, creating more runoff.

The term **surface water** is normally used in relation to surface runoff, particularly with regards to the naming of **surface water sewers** that take rainwater from roofs and highways.

These sewers (also sometimes called storm water sewers) do not take water to be treated, but to local watercourses. It is therefore important that contaminants that need treating are not put down drains in the highway or drains at the bottom of household or commercial downpipes!

7.12.2. Flooding from surface runoff tends to be very localised due to the fact that the most intense rainfall within a storm is often itself localised. The existence on the ground of structures or land heights that may channel water into certain locations also adds to this. Whatever the source, surface runoff will tend to flow towards low spots where it collects. Flooding can occur both to land or property which lies in the flow path of the water or to property situated in the low spot where the water finally collects. While flooding tends to be localised the actual risk is fairly well spread across Peterborough indicating that surface water flooding can happen almost anywhere.

7.12.3. In practise if heavy rainfall is particularly intense or occurs for long periods of time it can be difficult to differentiate it from other sources of flooding. Heavy rainfall can quite quickly cause flooding from surface water sewers, from ordinary watercourse flooding or from groundwater if the groundwater in the catchment is quick to respond. Ultimately full surface water sewers and ordinary watercourses can lead to increased levels in the Main Rivers and flooding from this source.

7.12.4. It is quite common for parts of Peterborough to experience small scale flooding of highways, footpaths and private gardens from surface runoff, as surface water sewers (sometimes called storm water sewers) are only designed with a standard of protection of 1 in 30 (3.3%). The number of homes that have flooded from surface runoff in the past is thankfully relatively low but we know from recent events that the risk exists and both new development and existing maintenance practises need to take this risk into consideration.

7.12.5. Figure 7-11 illustrates how the existing highway drainage system in Peterborough functions. Highway gullies owned by Peterborough City Council feed into surface water sewers currently owned by Anglian Water. As the increased future impacts of

heavier rainfall and severe weather are better understood, the use of sustainable drainage systems (introduced in chapter 4) needs to become more common to make Peterborough more resilient.

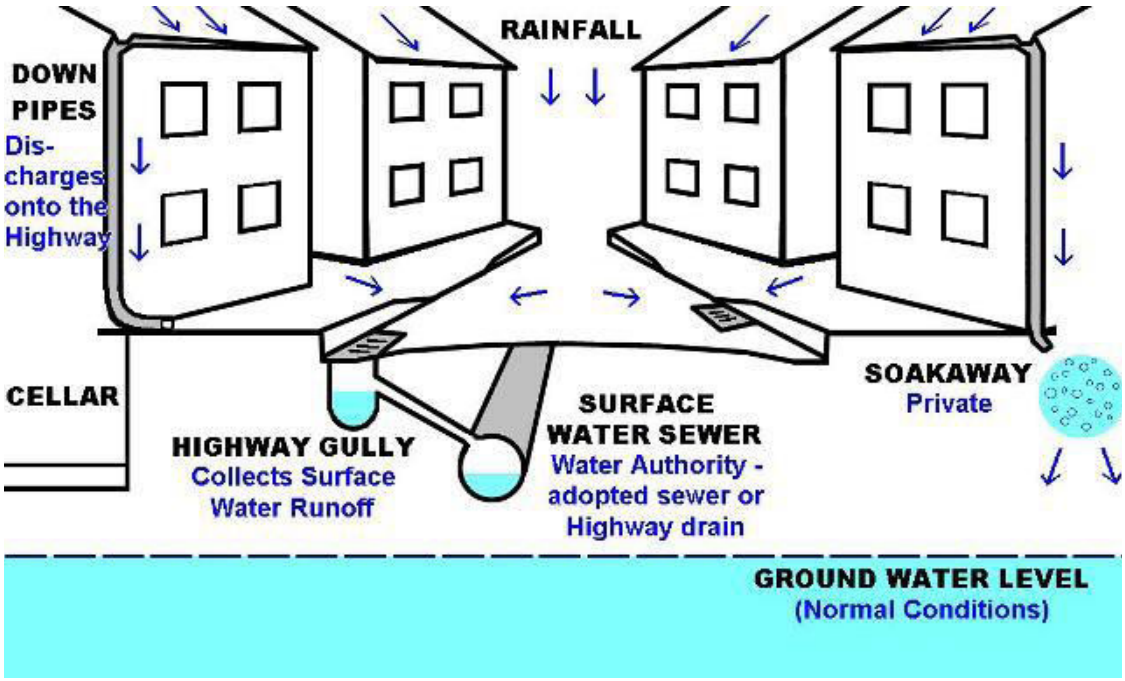

Figure 7-12: Illustration of how the highway drainage and surface water networks function.

7.12.6. Approaches to manage surface water that take account of water quantity (flooding), water quality (pollution) and amenity issues are collectively referred to as sustainable drainage systems (SuDS). SuDS mimic nature and typically manage rainfall close to where it falls. They are technically regarded as a sequence of management practises, control structures and designs to efficiently and sustainably drain surface water.

7.12.7. Further information is available from www.susdrain.org and www.peterborough.gov.uk/sustainabledrainage about the different types of SuDS components and what they can do.

7.12.8. The localised nature of thunderstorms with intense downpours makes it very difficult to accurately forecast and provide warnings for surface water flooding. Rain totals experienced even in neighbouring wards can vary significantly. Since water follows flow routes based on land heights and runs towards low spots, properties in one part of a street may well be affected while those further along the street may be fine. The Council recommends that communities and businesses check their risk level online and keep abreast of weather forecasts and weather warnings issued by the Met Office to give them as much notice as possible. To find out about the surface water risk in your area see box below.

Flood Maps

To view these maps and the risk for your area please go to:
http://maps.environment-agency.gov.uk/wiyby

7.12.9. The FWM Act 2010 defines flooding from surface runoff as that generated from rainwater (including snow and other precipitation) which is on the surface of the ground (whether or not it is moving), and has not yet entered a watercourse, drainage system or public sewer. This coincides with the type of flooding shown by the Environment Agency's Risk of Flooding from Surface Water maps.

7.12.10. **Risk of Flooding from Surface Water map**- This map shows the risk of surface water flooding and includes information on depth and velocity of water. The map does not take thresholds heights of individual properties into account and therefore cannot be used to identify properties that will flood from surface water. It can only give an indication of the broad areas at risk.

7.12.11. The map uses the following risk bands:

i. High – each year there is a chance of flooding of greater than 1 in 30 (3.3%).
ii. Medium – each year there is a chance of flooding of between 1 in 30 (3.3% and 1 in 100 (1%)
iii. Low – each year there is a chance of flooding of between 1 in 100 (1%) and 1 in 1000 (0.1%)
iv. Very low – each year there is a chance of flooding less than 1 in 1000 (0.1%)

7.12.12. Table 7-12 below shows other ways to explain the main risk categories used for the mapping:

Table 7-6: Understanding the main risk categories shown on the Risk of Flooding from Surface Water map

Level of risk	Chance of flooding in any given year (1 year)	Chance of flooding in a typical mortgage (30 years)	Chance of flooding in a lifetime (80 years)
High	Greater than 1 in 30 (3.3%)	Greater than 2 in 3 (64%)	Greater than 14 in 15 (94%)
Medium	Between 1 in 30 (3.3%) and 1 in 100 (1%)	Between 2 in 3 (64%) and 1 in 4 (26%)	Between 14 in 15 (94%) and 1 in 2 (55%)
Low	Between 1 in 100 (1%) and 1 in 1000 (0.1%)	Between 1 in 4 (26%) and 1 in 34 (3%)	Between 1 in 2 (55%) and 1 in 13 (8%)
Very Low	Less than 1 in 1000 (0.1%)	Less than 1 in 34 (3%)	Less than 1 in 13 (8%)

7.13. Groundwater flooding

7.13.1. Groundwater flooding relates to the movement of water through the soils and bedrock and is different to land being waterlogged. Clay, for example, can become easily waterlogged after long periods of rain. The water is held in the soil which becomes boggy and new rainfall is unable to drain away and instead becomes surface water runoff as discussed in section 5.7. A large area of Peterborough has clay–based soil.

7.13.2. Groundwater flooding occurs as a result of water rising up from the underlying aquifer or from water flowing from abnormal springs. It can also result from local

rivers being in flood over land that is very permeable as groundwater levels have a natural tendency to balance out other water levels across the area. Flooding tends to occur after long periods of sustained high rainfall, and the areas at most risk are often low-lying where the water table is more likely to be at shallow depth. Groundwater flooding is known to occur in areas underlain by major aquifers and in areas with floodplains made of sands and gravels.

7.13.3. In sands and gravels water can actually move through the soils due to the gaps between soil particles. This means that water can flow from place to place under the surface of the ground and hence flooding can be experienced in areas not directly next to a river or where rainfall has directly fallen. There are several places in Peterborough that have these kind of soils and hence are more susceptible to the movement of groundwater and flooding from this source.

7.14. Sewer Flooding

7.14.1. Peterborough has three different types of sewers: surface water sewers, foul sewers and combined sewers. Surface water runoff caused by surface water sewers reaching their capacity is dealt with in section 7.12. This section discusses the risk from foul sewers which carry wastewater from homes and businesses (e.g. from washing machines and toilets) and the risk from combined sewers which carry both foul water and rainwater.

Combined sewer flooding

7.14.2. Combined sewers are generally associated with having the greatest risk of flooding within the wastewater network; during intense rainfall events large quantities of rainwater can take up the capacity in the sewers. This can cause foul water to back up from manholes or inside homes e.g. from toilets. Much of Peterborough's existing city centre, the old hospital and station quarter and Central Ward contain combined sewers and this risk should be borne in mind when opportunities arise to make these areas more resilient for the future.

Foul flooding

7.14.3. There are not many locations in Peterborough which are classified as being at risk from foul flooding due to a lack of capacity in the network. This is because resolving foul flooding is a key priority for water and sewerage companies. Anglian Water is obliged to report to Ofwat where there are properties at risk of internal flooding due to hydraulic incapacity in the system. This is known as the DG5 register. The location of properties in Peterborough on the DG5 register is not discussed within the FMS due to very localised nature of this flooding; the implications for the property itself and because the register changes regularly as issues are resolved or in some cases as new problem areas are discovered.

7.14.4. Peterborough has also experienced foul flooding due to operational issues. Since these events can happen anywhere no specific levels of risk are formally associated with different parts of Peterborough. There are two main operational issues that the area suffers from:

a) Blockages in the network which preventing pumping stations from working and hence can create significant risk to properties on the same network as the blockage. Blockages are often caused by fats, oils and greases which are put down the drains at home and at work. The sewer system is not designed to be able to cope with these materials which act to clog up the pipes and removal is generally expensive.

b) Surface water infiltrating into the foul system (for which it is not designed) and caused capacity issues and surcharging. Most foul systems are not vacuum sealed and hence rainwater can get into them through structures like manholes. However it is when very large volumes appear in the network that this causes flood risk and investigation is needed into how the water is getting there.

Notes about the foul network

Foul water sewers carry used water from sinks, baths, showers, toilets, dishwashers and washing machines.

These sewers take water to be treated at sewage treatment works. Discharge containing chemicals should go into the foul network and not into surface water sewers as described in section 7.12. Detergents from car washes or oil leaks from cars are two examples of contaminants that often end up going into surface water sewers (and therefore untreated into rivers) when they would ideally go into the foul network.

The 'waste' from sewage treatment works is very often recycled into products for use in industrial and agricultural processes. For this reason you may hear Anglian Water refer to sewage treatment works as *water recycling plants.*

7.15. Impacts of Main Rivers water levels on other sources of flooding

7.15.1. Water levels in Main Rivers can easily impact upon flooding from other sources. Most ordinary watercourses, smaller Main Rivers and sewers flow or outfall into another river. If the larger river is full then the smaller watercourse or sewer will not be able to discharge freely and may back up. This will cause flooding higher up the network potentially quite far from a river.

7.16. Combined high tides and river flows

7.16.1. As described in section, when high tides occur in Peterborough the Dog-in-a-Doublet sluice is closed to prevent tidal waters flooding homes, businesses and land. When a high tide occurs at the same time as a high river flow on the River Nene the closure of the sluice gates means that water from the Nene cannot escape out to sea. For this reason water from the Nene is channelled into the Nene Washes flood storage reservoir via Stanground Sluice. The Nene Washes is also known to some as the Whittlesey Washes. When the tide begins to go out and river levels have reduced the stored water is released back into the Nene downstream at Rings End. This is demonstrated in figure 7-13 below.

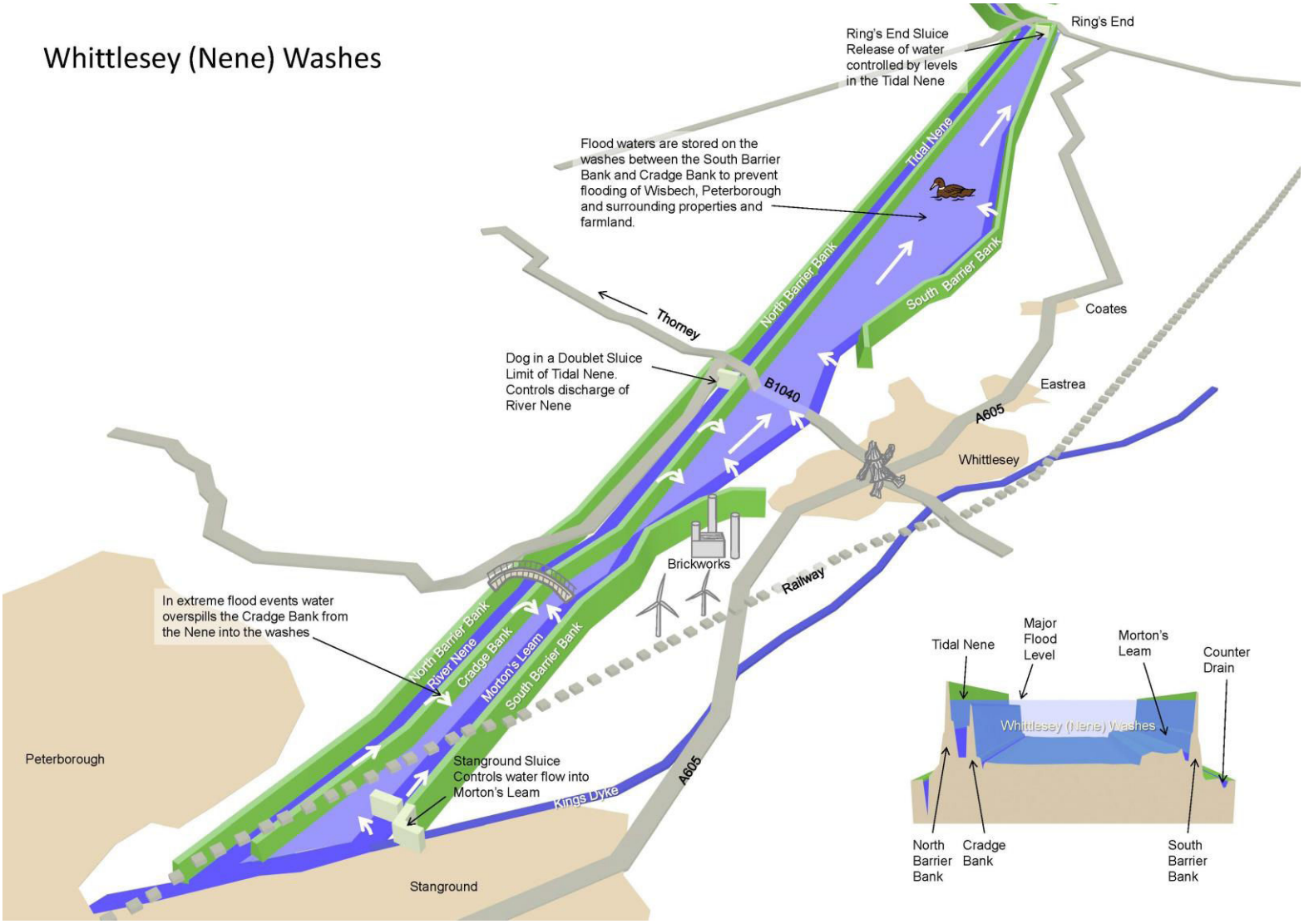

Figure 7-13: Diagram of the operation of the Washes. Formally water enters the Washes at Stanground Sluice via Morton's Leam and leaves at Rings End Sluice. When water levels in the Nene are very high water can also overtop the Cradge Bank into the Washes.

7.16.2. The original design capacity of the Washes is 1 in 200 (0.5%) as shown in figure 7-14. The existence of the North Bank embankment and the South Barrier Bank means that flood water would not however actually be expected to overtop onto surrounding land north or south of the Washes until a 1 in 1000 (0.1%) event was reached. It is important to note, however that by the time this happened large areas of Peterborough, both along the Nene, around Stanground sluice and else, would already be flooded.

7.16.3. In theory there could also be a risk of breach from the South Barrier Bank from flood events of annual probability between 0.5% and 0.1%. Breaches can take place when defences are weakened e.g. by continued severe weather or by the actions of humans (insufficient maintenance) or animals (burrowing). Significant works are currently being led by the Environment Agency along this bank to ensure that the probability and impact of such a breach is minimised.

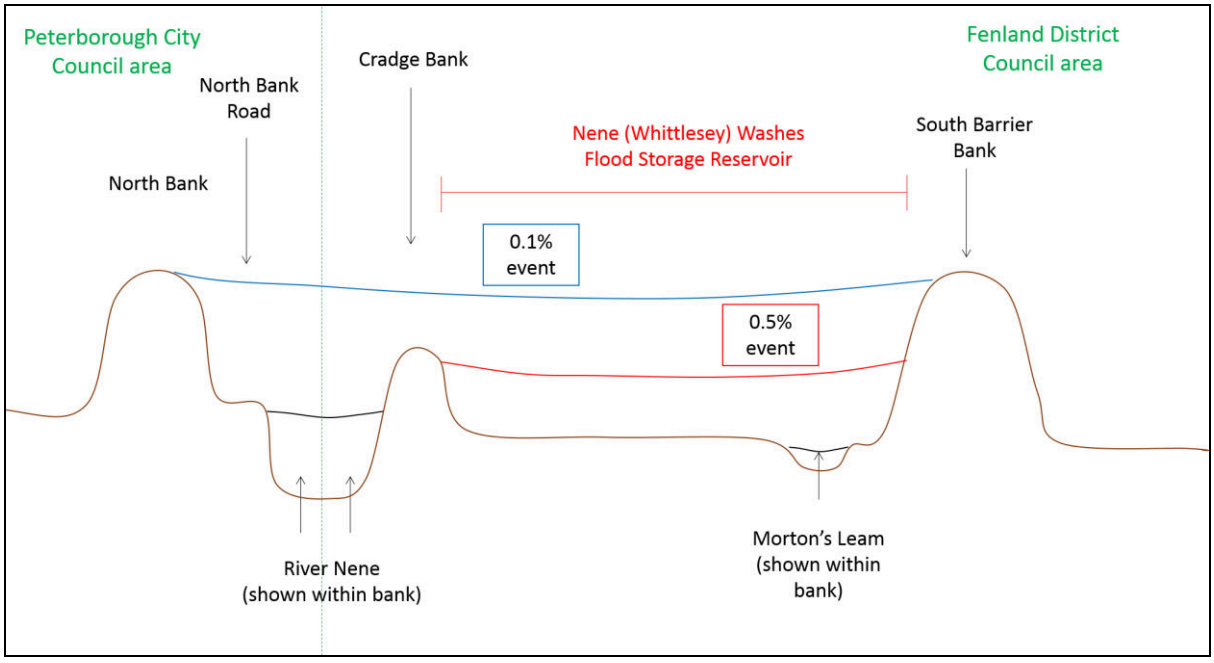

Figure 7-14: Diagram explaining the Nene (Whittlesey) Washes

7.16.4. The worst case situation for Peterborough is one where very intense local rainfall, coincides with maximum flow in the Nene for several days and a North Sea spring tidal surge occurs meaning that the Dog in a Doublet has to be closed often. This is because the chances of the Washes reaching its design capacity (0.5%) is increased and once this happens there is an increased risk that water will start to overtop the Nene in various places through Peterborough.

7.16.5. High local rainfall amounts would also mean that ordinary watercourses and sewers are likely to be unable to discharge into Main Rivers and hence localised surface water flooding will occur around low points, manholes, and where ordinary watercourses overtop.

Worst case impact on IDB systems

7.16.6. IDB systems are a secondary defence. While section 7-10 discusses the local risks of flooding from IDB systems, the large scale failure of an IDB system depends on the overtopping or failure of its primary defences; the Main Rivers defences of the

Nene or Welland. The situation on the Nene discussed in section 7.16 is that which could lead to the overwhelming of IDB systems. Intense local rainfall puts pressure on IDB systems and combined with overtopping from Main this could weaken an otherwise robust system. IDBs have several pumps they can use depending on demand and in such an event all pumps would be in use trying to remove water from the land as quickly as possible. In effect a circular motion could be created where water spills onto their land as quickly as they can pump it off.

7.16.7. It is this kind of event, potentially combined with the power outages that can occur during flooding, that would cause the large scale failure of the IDB systems and result in the widespread flood extents that are shown on the Environment Agency's Flood Map for Planning. This map shows the extent of flooding without considering defences and hence returns the Fens to an area of periodic flooding as would have been the case prior to the formal drainage of them in the 17th Century.

7.17. Flooding related to operational issues

7.17.1. Although flooding is usually caused by heavy or long duration rainfall, it can be easily made much worse by the presence of operational issues. The following are counted as operational issues:

c) Flytipping – large waste items e.g. tyres, sofas etc.
d) Littering – smaller items.
e) Plant and tree roots growing into piped systems and reducing the capacity.
f) Damaged pipes from wear and tear, vandalism, or movement of the ground.
g) Collapse of banks of a watercourse e.g. gradually over time (lack of maintenance) or suddenly due to ground instability or movement.

7.17.2. Since it can never be known exactly when such issues may occur, flooding from a watercourse could be caused after less rainfall than would be expected for a more natural flood event. The FMS cannot provide details of the risk of operational issues occurring, but it does give details of the approach which is taken to minimise this type of event in Peterborough e.g. regular maintenance/ This is covered in chapter 10.

7.18. Summary

7.18.1. Peterborough is at risk from many different types of flooding. Main river, the larger combined tidal and river events and flooding from combined sewers are the types that present the greatest risk on average across the City. However, surface water, groundwater and sewer flooding can still have devastating effects within very localised areas. Further efforts to promote an understanding of surface water flood risk are included with the action plan and discussed in chapter 10. Flood risk from groundwater and ordinary watercourses are the least well understood types and are areas proposed for further investigation in future. The likelihood of flooding from reservoirs is so low that even with widespread consequences the overall risk remains small. Peterborough's fenland areas are carefully managed. Very localised waterlogging and surface water flooding is possible over short time frames but with minimal impacts. However large scale failure of the drainage board systems is of considerably lower probability and would have to coincide with significant flooding elsewhere in Peterborough and the region. Flooding from operational issues in any part of Peterborough's watercourse or sewer network is impossible to model and map, but remains a risk for Peterborough and is identified as an area of work for Peterborough's water management authorities.

7.19. In the future

7.19.1. It is expected that flood risk from all sources will increase in the future. This is due to factors such as urban creep and climate change.

Urban creep

7.19.2. Over time the following noticeable development-related trends have an impact on flood risk, particularly causing an increase in surface water flooding:

a) an increase of hard paving being laid over grassed areas
b) in-fill developments and extensions being added to existing buildings

8. Climate Change Implications for Flood Risk

8.1. Context

8.1.1. There is clear scientific evidence that global climate change is happening now. It cannot be ignored.

8.1.2. Over the past century around the United Kingdom we have seen sea level rise and more of our winter rain falling in intense wet spells. Seasonal rainfall is highly variable. It seems to have decreased in summer and increased in winter, although winter amounts have only changed a little in the last 50 years. Some of the changes might reflect natural variation; however the broad trends are in line with projections from climate models.

8.1.3. Greenhouse gas (GHG) levels in the atmosphere are likely to cause higher winter rainfall in future. Past GHG emissions mean some climate change is inevitable in the next 20-30 years. Lower emissions could reduce the amount of climate change further into the future, but changes are still projected at least as far ahead as the 2080s.

8.1.4. Figure 8-1 below shows the expected temperature changes related to three different future scenarios for greenhouse gas emissions as set out by the Intergovernmental Panel on Climate Change (IPCC) and the United Kingdom climate projections.

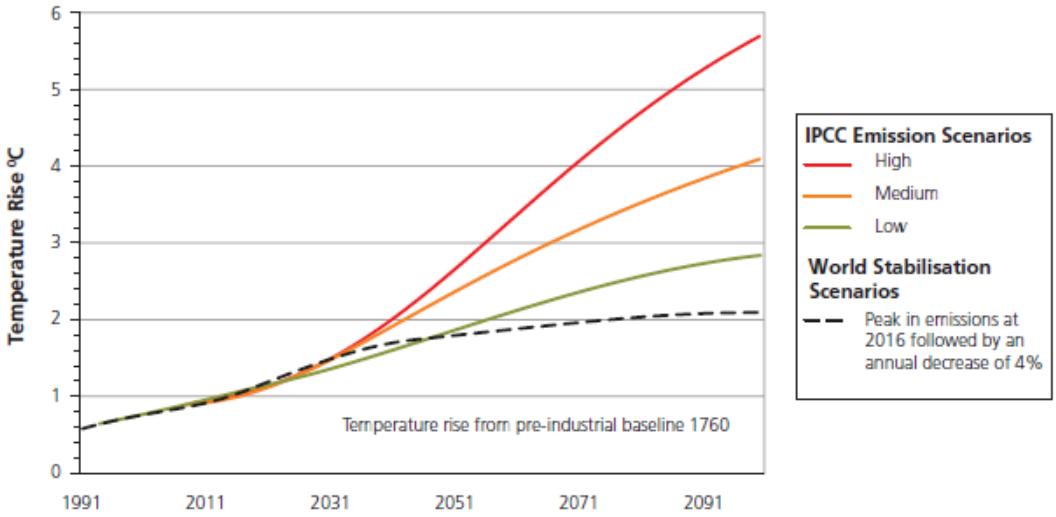

Figure 8-1: Temperature rise expected based on different emissions scenarios.

8.1.5. There is enough confidence in large scale climate models to say that Peterborough must plan for the implications of climate change. There is more uncertainty at a local scale but model results can still help us plan to adapt. For example rain storms are likely to become more intense, even if it isn't known exactly where or when. By the 2080s, the latest United Kingdom climate projections[4] are that there could be around three times as many days in winter with heavy rainfall (defined as more than

[4] UK Climate Projections 2009 (UKCP09) tool is a climate analysis tool, which funded by Defra, features the most comprehensive climate projections this country has. It provides information designed to help those needing to plan how they will adapt to a changing climate.

25mm in a day). It is plausible that the amount of rain in extreme storms (with a 1 in 5 annual chance, or rarer) could increase locally by 40%.

8.1.6. Between 1961 and 2006 UKCIP reports that the Anglian Region experienced:

i. An annual daily mean temperature increase of 1.4-1.8C
ii. An average increase in annual precipitation of 9%

8.2. Key projections for the Anglian River Basin District

8.2.1. The Environment Agency's Flood Risk Standing Advice on climate change allowances for planners sets out allowances that must be applied to flood risk assessments to account for climate change. The recommended allowances for net sea level rise since 1990, peak rainfall intensity and peak river flow are set out below in table 8-1.

Table 8-1: Allowances and sensitivities to be applied for climate change (Environment Agency, 2013)

Parameter	1990 to 2025	2025 to 2055	2055 to 2085	2085 to 2115
Sea level rise for the East of England (mm per year)[5]	4.0	8.5	12.0	15
National peak rainfall intensity[6]	+5%	+10%	+20%	+30%
National peak river flow	+10%	+20%		

8.3. Implications for flood risk

8.3.1. Climate changes can affect local flood risk in several ways. Impacts will depend on local conditions and vulnerability.

8.3.2. Wetter winters and more rain falling overall during wet spells may increase river flooding. More intense rainfall also causes more surface runoff, increasing localised flooding and erosion. In turn, this may increase pressure on drains, sewers and water quality. Storm intensity in summer could increase even in drier summers, so we need to be prepared for the unexpected.

8.3.3. Rising sea or river levels may also increase local flood risk inland or away from major rivers because of interactions with drains, sewers, groundwater and smaller watercourses. Even small rises in sea level could add to very high tides so as to affect places a long way inland. Significant future increases in both river levels and high tides could start to cause an impact on Peterborough's IDB systems (see section 7-11)

[5] You can derive sea level rise up to 2025 by applying the 4mm per year back to the 1990 level. You can derive sea level rise from 2026 to 2055 by adding the number of years on from 2025 to 2055.
[6] You can derive peak rainfall by multiplying the rainfall measurement (in mm per hour) by the relevant percentage so if there is a 10mm per hour rain event for the 2025 to 2055 period this would be 11mm per hour and for the 2055 to 2085 period this would be 12 mm per hour.

8.3.4. Flood and coastal erosion risk management guidance issued on adapting to climate change provides estimates for how river flood flows will change within the Anglian River Basin District. These are shown in table 8-2.

Table 8-2: Climate Change predictions for the Anglian Region (Environment Agency, Unknown)

Anglian Region	Total potential change anticipated for 2010 - 2039	Total potential change anticipated for 2040 - 2069	Total potential change anticipated for 2070 - 2099
Upper end estimate	30%	40%	70%
Change factor	10%	15%	25%
Lower end estimate	-15%	-10%	-5%

8.4. Local sensitivity to climate change

8.4.1. The impacts of climate change in Peterborough can only be understand fully from carrying out local studies. In 2012, Peterborough City Council therefore completed a Local Climate Impacts Profile to look at how changing weather patterns affect City Council services. Peterborough City Council is also keen to have a wider understanding of the sensitivity of Peterborough to climate change, but undertaking new modelling of the extent and scale of flood risk with climate change is beyond the scope of the FMS. A simple analysis has therefore been undertaken using existing data and tools to support existing plans and assessments.

8.4.2. Using maps showing different annual probabilities of flooding, the extent of flooding on a wide range of receptors around the City was recorded. Receptors include homes, hospitals, schools, nature reserves, listed buildings, roads and wastewater treatment works. The change in sensitivity of the receptors across the different annual probability events can be used as a proxy to climate change. The risk of flooding from rivers shown in flood zone 3 was compared with that in flood zone 2 and the risk of flooding from surface water for a 1 in 30 annual probability event was compared with that of a 1 in 1000 annual probability event. The wards showing the greatest difference are those most likely to be sensitive to heavier storms and increased river flows as a result of climate change. The impact of flood risk and the sensitivity to climate change of a ward is a factor not only of the extent of flooding but also of the types of receptors existing within that ward and the significance of those receptors being flooded.

8.4.3. The wards with medium to very high sensitivity to climate change are listed in table 8-3 below. Figures 8-2 and 8-3 show the relative sensitivity of all wards. Note that the wards scoring highly are those expecting the biggest *change* in future years. A ward with a consistently high risk of flooding from both low and high probability flood events will not score as having a high sensitivity to climate change.

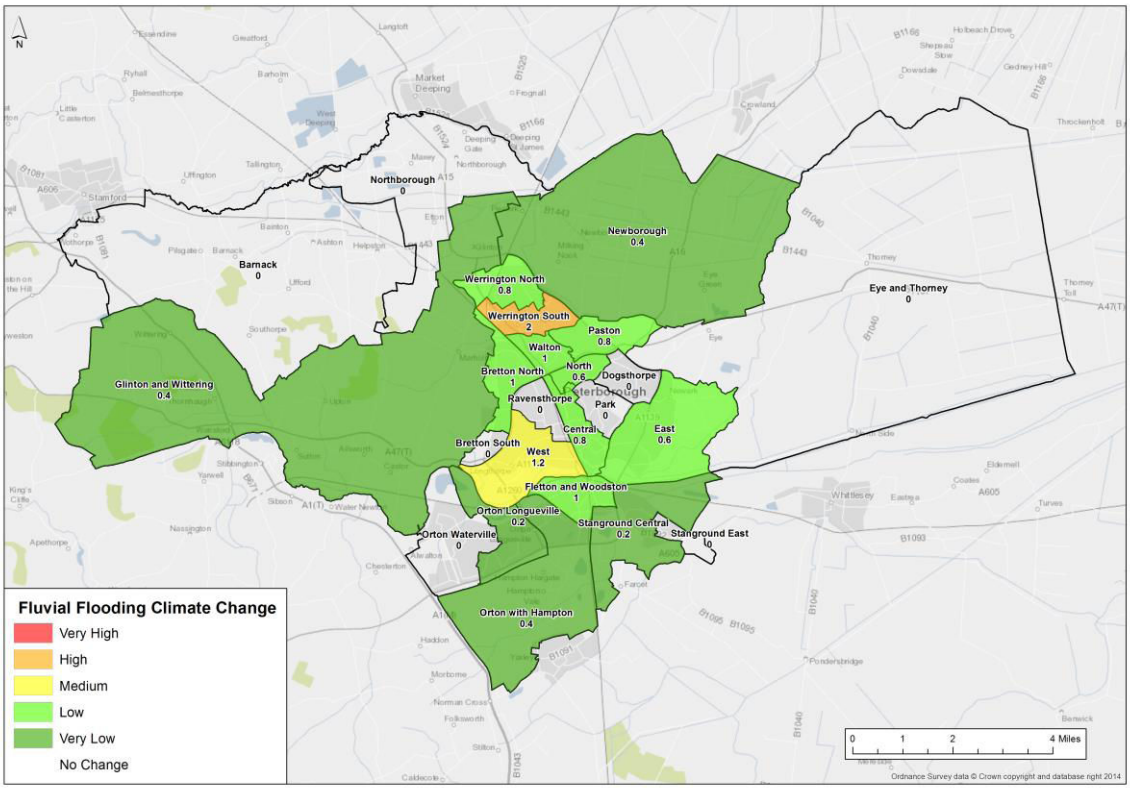

Figure 8-2: Map showing the sensitivity of wards to changes in river flooding

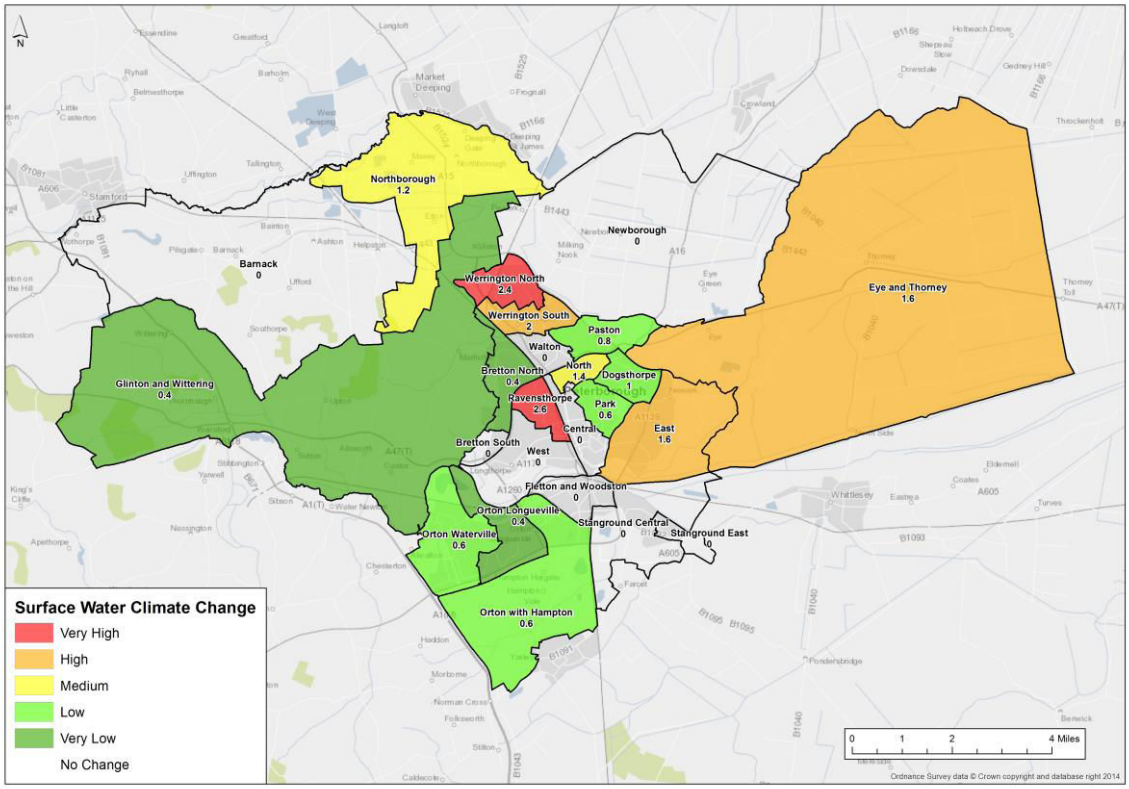

Figure 8-3: Map showing the sensitivity of wards to changes in surface water flooding

Table 8-3: Wards that are expected to be most susceptible to the flood risk implications of climate change

Source of flood risk	Ward	Rating
River flooding	Werrington South	High
	West	Medium
Surface water flooding	Ravensthorpe	Very High
	Werrington North	Very High
	East	High
	Eye and Thorney	High
	Werrington South	High
	North	Medium
	Northborough	Medium

8.5. Adapting to change

8.5.1. Past emissions mean some level of climate change is inevitable. It is essential we respond by planning ahead. We can prepare by understanding our current and future vulnerability to flooding, developing plans for increased resilience and building the capacity to adapt. Regular review and adherence to these plans is key to achieving long-term, sustainable benefits.

8.5.2. Although the broad climate change picture is clear, we have to make local decisions against deeper uncertainty. We will therefore need to consider a range of measures and retain flexibility to adapt. This approach, embodied within flood risk appraisal guidance, would help to ensure that we do not increase our vulnerability to flooding.

8.5.3. The FMS raises the need to ensure that all City Council services and can adapt to changing weather and become more resilient. Suggested adaptation measures for severe weather and flood risk include:

a) Appropriate management and maintenance of existing flood risk assets;
b) Ensuring development is sustainable with appropriate drainage systems and flood resilience measures;
c) Improving the resilience of city infrastructure (pumping stations, sewage treatment works and powers stations etc) against flooding;
d) Improving the resilience of our highway network against droughts (can cause road subsidence and cracking in Fen areas), flooding and ice (blockage of drainage systems and potholes);
e) Recording the impact on City Council resources and services of severe weather events to improve our understanding;
f) Increasing summer and winter water storage to be used for periods of flooding and drought;
g) Developing a specific adaptation plan for City Council services;
h) Increasing tree cover across Peterborough to reduce urban heat island effect and slow down the movement of water.

9. Partnership Funding

9.1. Introduction

9.1.1. This chapter provides background on the different types of funding which may contribute towards a flood management action or a water environment action proposed in Peterborough. National funding is explained in the most detail as this system has changed in recent years and often attracts questions. The sections following that are laid out in terms of how they are referred to in national funding guidelines and examples are given of average expenditure of Peterborough's flood risk management organisations.

9.1.2. Expenditure for all flood risk and water management schemes is split down into capital works (that create, purchase, significantly improve or replace new assets) and revenue works (operational maintenance). Maintenance is often funded by the owner of, or the organisation responsible for, a certain type of watercourse or management asset. Capital funding often requires more levels of approval. Capital budgets are not allocated as routine by organisations so money often has to be bid for in competition with other projects.

9.2. Grant in Aid - national funding

Flood risk funding

9.2.1. The way that flood risk management projects are managed and funded has recently changed in the UK. Since April 2012 the new government policy *Flood and Coastal Resilience Partnership Funding* has controlled how money is allocated to capital projects. In theory under the new approach every project providing a certain level of benefits has the potential to be supported by support from national funding over time. The amount of national funding, known as Grant in Aid (GiA) available to any capital project will directly relate to the outcomes the project delivers. GiA for flood risk management projects is called Flood Defence Grant in Aid (FDGiA). The outcomes measures for capital flood risk management schemes have been set by Defra and are as below:

- Outcome Measure (OM) 1 – Economic benefits
- OM 2 – Households at risk
- OM 2b – Households at very significant and significant risk
- OM2c – Deprived households at very significant and significant risk
- OM3 – Households at risk from coastal erosion
- OM3b – Households at risk from coastal erosion in 20 years
- OM3c – Deprived households at risk from coastal erosion in 20 years
- OM4a – Hectares of water dependent habitat created or improved
- OM4b – Hectares of intertidal habitat created
- OM4c – Kilometres of rivers protected under the EU Habitats/Birds Directive

9.2.2. Each outcomes measure has a payment rate associated with it. Households better protected against flood risk or coastal erosion in the 20% most deprived areas of the country have the greatest payment rate; in this case OM2c and OM3c have a payment rate of 45p per £1of the scheme cost. This clearly highlights the need for additional non-Government funding to enable any scheme to be delivered.

9.2.3. Defra have produced a spreadsheet calculator which allows flood risk management authorities to calculate what percentage of costs might be covered by central government through GiA funding and what other contributions they will need to raise locally. It is intended that beneficiaries to the scheme will contribute in some way, whether they be LLFAs, IDBs, Parish Councils, communities, or private companies. As well as direct financial contributions, agreements to carry out maintenance or other in-kind contributions that a cost could be put against may also be considered. Any contribution put towards the scheme improves the overall Partnership Funding score of the scheme. Every scheme must score a minimum of 100% to be eligible for GiA.

9.2.4. Schemes requesting FDGiA need to be submitted to the Environment Agency's / RFCC's Medium Term Plan (MTP). The MTP sets out a six-year programme of works that the RFCC would like to deliver subject to funding, further development of business cases and final scheme approvals. This is a very similar situation to the Peterborough action plan (Appendix F) for the FMS but for the Anglian region. Projects to be delivered in Peterborough that require FDGiA need to be in both the FMS and the MTP.

9.2.5. There is a limited pot of central government funding so FDGiA payments to approved projects will be subject to availability of funds. Each year competing projects will be prioritised by RFCCs to ensure projects provide good value for money and to achieve national and regional targets. As of 2014/15 there are several very large capital projects in the UK that already have expenditure in future years committed to them. This reduces the amount of money available to new schemes. Therefore the Partnership Funding score needed is very high, almost 250%. This may change in future years and so it is encouraged that projects are still submitted to the Medium Term Plan even for the future even if they cannot yet reach a suitable score to enable delivery.

9.2.6. It is expected that through the need to work in partnership all schemes proposed will now consider management of flood risk in an area from all sources, proposing joint solutions that reduce the overall flood risk to a community or area.

9.2.7. The inclusion of amenity benefits for local communities is one way of attracting wider support for schemes from local communities and helps to draw in local contributions.

9.2.8. All schemes are also encouraged financially to include the delivery of multiple benefits related to other themes of water management other than flood risk. Outcome measures 4a to 4c specifically encourage habitat benefits.

Water Environment funding

9.2.9. For schemes where the main driver is environmental improvement, the source of Government funding is instead Water Framework Directive Grant in Aid (WDGiA). These schemes may include work to improve habitats, increase biodiversity, remove obstacles to fish and eel migration, and improve water quality. Ultimately the schemes should bring about an improvement to, or help to prevent a deterioration in the status of a watercourse under the Water Framework Directive.

9.2.10. The investment plan in which all such schemes needs to be entered is called the Integrated Environment Programme (IEP). This is the equivalent of the flood risk management MTP. The process for submitting projects is largely similar to that for

flood risk management and schemes will need to demonstrate how they meet the IEP's outcome measures in order to attract funding.

9.2.11. If schemes deliver significant benefits to flood risk and to the water environment they can be entered into the MTP and the IEP and apply to use both FDGiA and WFDGiA.

9.3. Public contributions

Environment Agency funding

9.3.1. As discussed in section 6.4, the majority of the Environment Agency's funding for flood and coastal risk management comes directly from the Department for the Environment, Food and Rural Affairs (Defra). This is the same for water environment works to meet the Water Framework Directive. For new capital schemes, the Environment Agency need to put their projects on the MTP and IEP and submit project bids to Defra for GiA in the same way that LLFAs and IDBs can. Therefore there is no additional source of Environment Agency funding that could be added to a bid, e.g. as a local contribution, in order to raise the partnership funding score.

Regional Flood and Coastal Committee

Section 6.9 explains the role of the Anglian Northern Regional Flood and Coastal Committee. Part of this role is to oversee the MTP work programme of flood risk management schemes in the region. Within the region of the Anglian Northern Regional Flood and Coastal Committee the gross expenditure of the Environment Agency was £33,119,000 in 2013/14 and is £44,679,000 for 2014/15. These values include money collected from Local Levy, General Drainage Charges and IDB Precepts as shown in table 9-1.

Table 9-1: RFCC income

Income source	Income in 2014/15 (£k)
Government FDGiA	37,988
IDB precepts	2,167
General Drainage Charges	1,420
Local Levy payments from LLFAs	1,681
Movement in balances	1,423
Total Income	**44,679**

9.3.2. The RFCC collects and allocates IDB Precepts, General Drainage Charge and Local Levy funding which can be used as match funding for capital schemes requiring FDGiA or to support delivery of the revenue maintenance programme. For very small schemes that are deemed locally significant, it is sometimes possible for these to be funded directly from these sources. Therefore any schemes hoping for regional contributions need to be submitted to the MTP.

Local Levy

9.3.3. Under the FWMA 2010 and the Environment Agency (Levies) (England and Wales) Regulations 2011, local levy is collected annually from all Lead Local Floods Authorities in the area of the RFCC. The levy is agreed annually in January and are

often based on an average increase of between 0% and 5%. The total levy payment is shared between all contributing bodies in the committee area on the basis of the number of Council Tax Band D equivalents that each has. The table below illustrates the total value of the Local Levy collected by the RFCC and the contribution from PCC for the last few years.

Table 9-2:Local Levy paid by the City Council

Budget	Amount 2012/13	Amount 2013/14	Amount 2014/15
Average voted change from previous year*	0%	+ 5%	+ 3.5%
Actual Peterborough Local Levy contribution (£k)	147	154.5	161.4
Total Levy collected by Anglian Northern RFCC (£k)	1,547	1,624	1,681

General drainage charges

9.3.4. General Drainage Charges are charged directly to agricultural landowners who are not in an IDB area. The charge is deemed to be a contribution towards the management of water and flood risk for those landowners. It is calculated on a rate per hectare basis using the Council Tax Base of Band D equivalent properties.

IDB precepts

9.3.5. Precepts are paid by IDBs to the Environment Agency for works done by the Environment Agency on channels or defences that affect or are in an IDBs area. The works are normally maintenance based. The formula for calculating the precept is complex but is approximately based on the number of hectares of land protected. The value of precepts has not been raised for a few years.

Lead Local Flood Authority funding

9.3.6. Money spent by the City Council on flood and water related actions comes from un-ringfenced Government flood risk grants, from allocating a share of the corporate budget to this area or from ringfenced commuted sums relating to specific development schemes. Since becoming an LLFA, the Council has had an average total budget of approximately £600k for all drainage, flood risk management and water management activities. This expenditure goes on:

a) highway drainage maintenance, schemes and reactive works (gullies and watercourses);
b) maintenance of adopted drainage systems on specific development sites;
c) relevant staff salaries and on-costs;
d) asset surveys;
e) flood awareness community events

f) delivery of required flood risk reports or policies e.g. for developing the
g) training and software; and
h) flood and water management projects.

9.3.7. The sum in section 9.3.6 excludes the drainage and flood risk sums collected through Council Tax each year which are then:

i. paid as a Local Levy contribution to the Environment Agency for management by the RFCC; or
ii. transferred to the IDBs as a Special Levy.

As of 2013/14 information is included in Peterborough's Council Tax booklet about these levies.

9.3.8. To obtain corporate capital funding to deliver significant capital schemes, officers would need to submit a separate bid for funding as part of the annual budget setting process.

9.4. Internal Drainage Board funding

9.4.1. As discussed in section 6.5 drainage boards are funded by rates paid by the landowners in their area. This can be broken down into Drainage Rates and Special Levies. Drainage rates are paid by agricultural landowners direct to the IDB based on the area of their property. Where land in the IDB's district is not in agricultural use, the owner instead pays their levy to Peterborough City Council as part of their Council Tax. The relevant amount is then separated out from the Council Tax and paid to each IDB. This is known as a Special Levy.

9.4.2. The total expenditure for Peterborough's two largest IDBs for the year 2014/15 is shown in table X. The area of Peterborough that falls within the Middle Level and with the Whittlesey and District IDB is small and hence the details of these organisations is omitted below. It is important to note that the IDBs' funding is for maintenance and capital works across their whole areas, not just in Peterborough.

Internal Drainage Board	Total Expenditure for 2014/15
North Level District IDB	£1,514,778
Welland and Deepings IDB	£2,100,367

9.5. Private contributions (community and commercial)

9.5.1. Partnership funding guidance intends that those benefitting from the proposed flood management scheme contribute towards its costs. This could be local residents, a Parish Council or a local business, for example. Securing contributions from private sources is not easy, especially as it is a relatively new system, and therefore Peterborough City Council will endeavour to engage with all beneficiaries as early as possible in the process of developing new schemes. If there is an expectation that others will contribute then it is important that they are involved in designing the scheme.

Anglian Water

9.5.2. Contributions from water companies count as private contributions. In order to secure funding from Anglian Water, projects need to be part of the company's five yearly Asset Management Plan (AMP) which is agreed by Ofwat, the water company regulator. The upcoming AMP period is called AMP 6 and covers 2015 to 2020. Prices are set by Ofwat at the beginning of each AMP period, following submissions from the water company about what it will cost to deliver their business plan.

9.6. Impact of local funding contributions

9.6.1. In order to demonstrate the importance of local funding being available to contribute to schemes applying for FDGiA, the following figures have been calculated by the RFCC:

Figure 9-1: Example of the multiplying benefit of Local Levy

For a Levy contribution of	= £1000
Actual cost to the Local Authority	= £667
Expected funding levered in from GiA	= £3,000 to £15,000
Actual benefit to the local community	= £20,000 to £120,000

10. Management and Action Plan

10.1. Introduction

10.1.1. This chapter provides the context to and the benefits of the different management procedures, policies and actions of Peterborough's flood and water management organisations. The chapter is intended to be read alongside the Completed Action Reference Table in Appendix E and the proposed Action Plan in Appendix F.

10.1.2. Since the introduction of the FWMA 2010 the organisations managing flood risk in Peterborough have come a long way in terms of working together to understand and manage risk. The Flood Risk Partnership was established (now the Flood and Water Management Partnership as described in section 9), and many actions have been delivered in partnership. There has been a significant increase in communication and awareness raising activities and in the consideration of surface runoff and groundwater flooding. Appendix E has been put together to illustrate the actions delivered since the FWMA 2010 was enacted.

Figure 10-1: Completed action to create a new ditch near Eye Green to reduce flooding

10.1.3. A major role of the FMS is to set out actions for the future. The proposed Action Plan (in Appendix F) includes the following information about individual projects:

i. Name
ii. Action Reference
iii. Ward
iv. Management area
v. Description of the action
vi. Lead partner
vii. Other partners
viii. Time frame
ix. Funding source
x. Cost
xi. Objectives and benefits
xii. Priority of the action
xiii. Progress

10.1.4. A more comprehensive action plan is available on request that also contains information about the: catchment, the source of flood risk being addressed, the objective that the action meets, project risks, legislation or policy drivers, and action plan review dates.

10.1.5. Some actions apply fairly consistently across Peterborough. These actions are listed as having a Peterborough-wide management area and are discussed next. Some actions are specific to different areas of Peterborough due to local characteristics (e.g. landscape type) dictating the need for different approaches. For the purpose of discussing these latter actions, Peterborough has been divided into three management areas: Urban, Fens (Rural North and East) and Rural West as shown in figure 9-1.

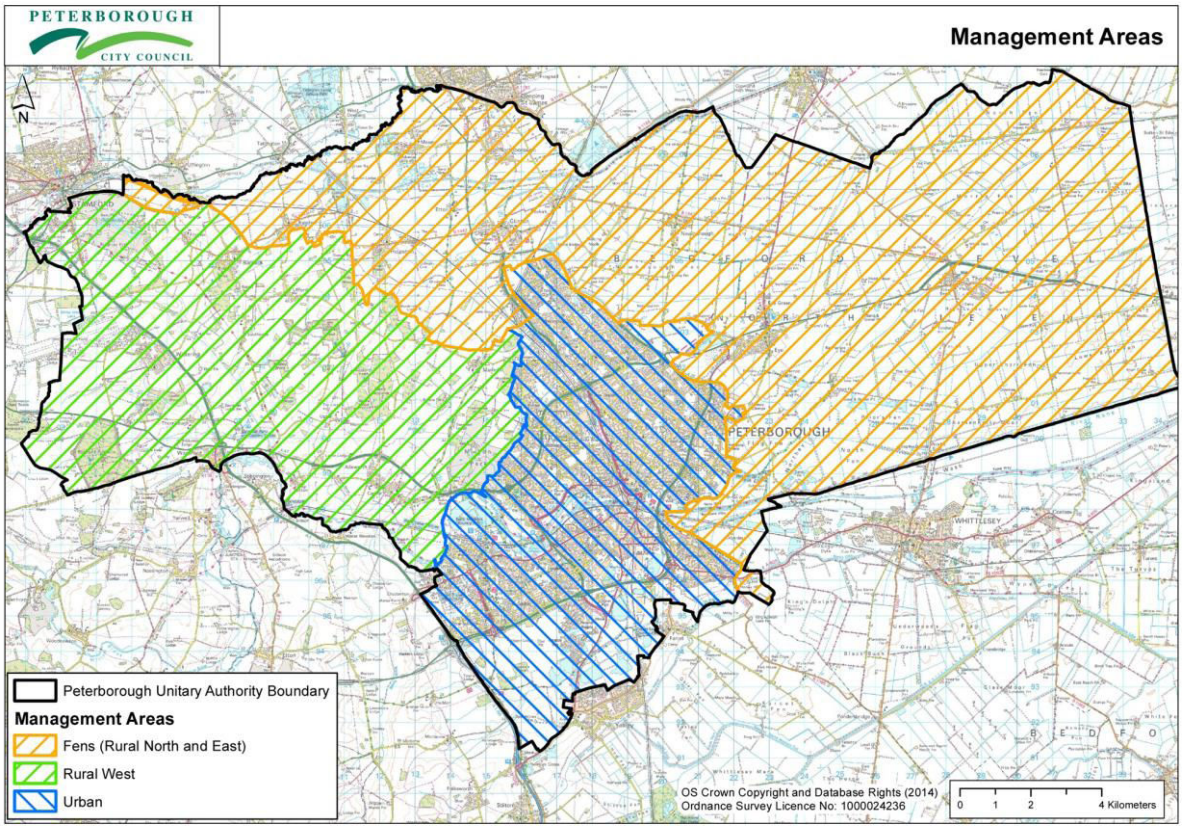

Figure 10-2: Management areas into which Peterborough has been divided for the purpose of the Action Plan

10.1.6. Against each action listed in the action plan it is noted which objectives the action meets and what type of benefits the action has. The meeting of FMS objectives allows the achievement of the objectives in the National Flood and Coastal Risk Erosion Management Strategy as set out in 3.3. Below is a reminder of the FMS objectives:

Objective 1 – Improve awareness and understanding of flood risk and its management, to ensure that everyone can make informed decisions and take their own action to become more resilient to risk.

Objective 2 – Establish efficient co-ordinated cross-partner approaches to flood and water management, response and recovery, sharing and seeking new resources together.

Objective 3 - Reduce flood risk to prioritised areas and strategic infrastructure, ensuring that standards of protection elsewhere are maintained.

Objective 4 – Improve the wider sustainability of Peterborough, ensuring an integrated catchment approach and proper consideration of the water environment and its benefits, in new and existing environments.

10.1.7. Some schemes have direct benefits to a numbers of home and businesses, some to infrastructure or the natural environment and some actions are more about improving the efficiency of management processes and expanding flood risk knowledge. The latter category will still have benefits to homes and businesses but they may be indirect. Once schemes are worked up in more detail in terms of development of the detailed business cases, it will be possible to provide further information about the exact benefits achieved. A list is provided below of the benefit categories used for the actions:

A	Agriculture
B	Businesses
C	Community amenities and public services
D	New development
E	Efficiency of management
H	Homes
I	Infrastructure
L	Better local knowledge and understanding
N	Natural environnement

Dependencies and risks

Funding
All of the schemes proposed in the strategy will require individual business cases to be developed by the lead partner They will not be able to progress beyond this stage unless approval is obtained from all stakeholders and funding partners. Appropriate funding needs to be secured from a range of different sources to meet Partnership Funding requirements (see chapter 9). This may result in some schemes being delayed until these requirements are met.

Priority changes
Priorities may need to change, for example, as a result of updated information about the flood risk in an area (i.e. from modelling), the specific risks associated with delivering the project, and /or the availability of resources to deliver the schemes.

Land ownership and maintenance agreements
If third party land is required for a scheme, the landowner's approval will need to be sought. It is also essential that an agreement is put in place about the long-term maintenance of any structure or feature being constructed.

Flood defence or ordinary watercourse land drainage consent
Changes to watercourses require consent under the Land Drainage Act 1991. Consent requires the project to demonstrate that there will be no negative impacts on flood risk elsewhere, on the watercourse or on elements of the habitat and water quality that are governed by the Water Framework Directive.

Planning consent
Some projects may require planning permission or traffic regulation orders.

10.2. Management - Peterborough-wide

10.2.1. This section gives an overview of the different types of management taking place now and in the future that are not specific to one particular area of Peterborough. This section should be read alongside the section which specifically relates to your area of interest to give a full picture of flood risk management in your area.

Watercourse maintenance

Action reference	*Benefits to*
A1	H, B, A, I, C
A2	H, B, A, I, C

10.2.2. Each water management organisation undertakes a variety of maintenance activities to look after their infrastructure. Details are provided in table 10-2 below.

10.2.3. Some watercourses have much higher or lower risk associated with them and therefore the maintenance required will vary according to the risk profile. For example Peterborough City Council uses the following classification for its watercourses as shown in table 10-1:

Table 10-1: Watercourse classification

Class	PCC Classification
1	Critical
2	Non critical – high risk
3	Non critical – medium risk
4	Non critical – low risk
5	No routine maintenance

Table 10-2: Maintenance activities undertaken in Peterborough

Organisation	Location of activity	Maintenance activity	Average frequency
PCC (Drainage and Highways Functions)	Higher risk watercourses (classes 1-3)	Vegetation management	Annually
		Rubbish removal and headwall and screen clearance	As required
		De-silting	Every 30 years, plus localised high silt levels
	Lower risk watercourses (class 4)	Vegetation management, litter removal and desilting	As required
	Highway gullies	Carriageway and footway gully cleaning	Routinely as well as on a reactive basis
Environment Agency	Nene	Vegetation maintenance	As required
		De-silting	Annually at Popley's Gull where silt collects
	Welland	Vegetation maintenance	As required
		De-silting	Not applicable
	Higher risk Main Rivers (excluding Nene and Welland)	Vegetation maintenance	As required
	Lower risk Main Rivers	Vegetation maintenance	As required
	All raised defences	Vermin control of raised defences	As required

10.2.4. The maintenance works carried out by IDBs is covered in section 10.5 as this is specific to the Fens (Rural North and East).

10.2.5. Each organisation also undertakes upgrade schemes in specific locations depending on the areas of greatest need and the funding available. The schemes proposed for the upcoming years are included in the Action Plan.

Emergency planning

Action reference	*Benefits to*
C4	H, B, C, L
C13	H, B
P1	H, B, I, E, L
P24	H, B, I, C

10.2.6. Under the Civil Contingency Act 2004, Peterborough City Council and many of the other flood management organisations are also emergency responders. There are two categories of emergency responder:

i. Category 1 – the core responders. Includes the 'blue-light' services (Police, Fire and Rescue, Ambulance Service), the NHS, local authorities and the Environment Agency.
ii. Category 2 – co-operating responders that act in support of the category 1 responders. Includes utility companies such as Anglian Water and UK Power Networks, and transport organisations such as the Highway Agency.

10.2.7. In planning for flooding the following different roles exist under this legislation:
a) Warning and informing people – all
b) Putting joint response plans in place - all
c) Response actions – blue light services
d) Recovery – Local authorities i.e. Peterborough City Council

10.2.8. All local authorities will have an emergency flood plan. Peterborough's Flood Guidance Document was last reviewed in 2011 and there are currently separate plans for Peterborough and Cambridgeshire. It is intended now to create one plan covering both local authority areas as this would then align with the area over which the Emergency Services operate, making response more efficient. The plan would be used by all emergency responders and is therefore to be called a Multi-Agency Flood Plan. The Environment Agency will also be involved in the development of both this plan and others from surrounding areas to ensure full coverage of the Nene and Welland catchments.

10.2.9. One of the most controversial elements of the November/December 2012 flood events was the issues of sandbags. The need for clarity over the policy of the Council and its partner organisations is very important. Some local authorities do provide sandbags, knowing that the presence and actions of Council and emergency services officers on site delivering sandbags and helping local people is one that reassures. However many other Council do not provide sandbags. This is because while they can slow down flood water, they do not stop it; they provide no protection if the flooding is due to rising groundwater; and after the floods the disposal of large numbers of contaminated sandbags can be very difficult and expensive. Efforts can sometimes be better focused on investing in other, better and reusable defence measures. At any time you will be able to find the sandbag policy of Peterborough City Council online at www.peterborough.gov.uk/floodinformation. A proposed future action is for PCC to investigate the benefits of procuring any longer lasting 'temporary' defences. While a storage location for these would need to be found, the defences could be used to help protect Council property, such as the Key Theatre, as well as other key infrastructure.

10.2.10. As part of their role in managing flood risk from Main Rivers, the Environment Agency provide a Main River forecasting and flood warning service. It is their intention to continue this service, to work with local communities and other risk management authorities to promote awareness of flood risk and the warning service.

10.2.11. Activities are included in the Action Plan to help us better plan for and improve resilience against surface water flooding. Surface water flooding is very hard to predict due both to the nature of heavy rain showers being very localised and changes in land levels having a very significant effect on where the runoff ends up.

To try and improve our understanding and management of surface water the following actions are being considered:

a) Raising awareness through our website and targeted communications of the risk of surface water flooding, of weather warnings and of what people can do and who they can contact.
b) Continue to follow the current national and European research (such as the RAINGAIN programme[7]) on the development of surface water flooding warning systems. Incorporate learning and actions into our plans whenever possible.

Resilience of critical infrastructure

Action reference	*Benefits to*
C14	I

10.2.12. Peterborough's critical infrastructure (electricity substations, water treatment plants, care homes, schools etc) are often owned by a range of different organisations, many of them not part of the FloW Partnership. Peterborough City Council and the FloW Partnership have highlighted an action to work with the owners of critical infrastructure wherever possible to ensure that flood risk to the infrastructure is minimised.

Flood risk communication and awareness

Action reference	*Benefits to*
C2	E, L, C
C3	E
C4	H, B, C, L
C5	H, B, N, C, E, L
C6	H, B, I, E
C7	H, I
C11	H, I

10.2.13. Communication about flood risk with residents and businesses is very important. The principal areas of communication which are required are:

a) Warning people of imminent flooding.
b) Making people aware of flood risk in their area (outside of flood events) and ensuring they know where to look and who to contact for further information.
c) Encouraging people to prepare themselves mentally and physically for flooding and make their homes more resilient.
d) Encouraging and supporting communities and Parish Councils to prepare their own emergency plans.
e) Helping people to understand what organisations and processes are currently in place to manage flood risk in their area and who to contact.
f) Being clear about things that residents, businesses, developers can do to make sure that they do not increase flood risk such as not paving over gardens with impermeable materials or putting fats, oils, greases and other 'unflushables' such as baby wipes down the sink, drains or toilets.

[7] http://www.raingain.eu

g) An awareness raising campaign about the responsibilities of riparian owners (those owning land which is alongside or which contains a watercourse) and the flood risks that are caused when appropriate maintenance is not carried out. Many residents and organisations in Peterborough, including the Council, the Environment Agency and Anglian Water, are riparian owners. If we can ensure that watercourses do not get forgotten about and receive an appropriate level of maintenance this will reducing the changes of flood risk being caused by blockages or a lack of care. In Peterborough, tree clippings, rubble and flytipping have all been dumped in watercourses from time to time. Each time this happens these will significantly increase the risk of flooding for those living alongside that watercourse.

10.2.14. All of these elements are included in the Flood and Water Management Partnership's intended actions (Appendix F). The communication messages will be delivered through a range of mediums such as website updates, flood warden training sessions and larger scale public events.

Integrated landscape and water management

Action reference	*Benefits to*
P4	H, B, I, E, N, C, D
P5	H, B, I, N, C, D
P8	H, B, E
P9	B, I, D
P16	H
P17	H, B, C
P18	A, I
P19	H, B
P20	H, B, A, I, D
P21	H, B, I, E

10.2.15. When flood management schemes are being proposed, consideration will be given to other water and green infrastructure management actions in the same catchment or sub-catchment that could be combined to create a larger joint scheme. This could deliver a wider range of benefits as discussed in chapter 4, increase the number of outcomes measures for Partnership Funding (section 9) and therefore increase the chance of a scheme going ahead. Actions from the Green Grid Strategy and the Nene and Welland integrated catchment management plans are included in the Action Plan for the FMS where these seeks to deliver notable benefits to flood risk.

Flood investigations and thresholds

Action reference	*Benefits to*
A3	H, B, A, I

10.2.16. Section 19 of the FWMA 2010 sets out that LLFAs have a duty to investigate flooding incidents within their area, to the extent that the LLFA considers necessary or appropriate. The investigation must set out:

a) *which risk management authorities have relevant flood risk management functions, and*

b) *whether each of those risk management authorities have exercised, or is proposed to exercise, those functions in response to the flood.*

10.2.17. Where an authority carries out an investigation:

a) *it must publish the results of its investigation, and*
b) *notify any relevant risk management authorities.*

For the City Council to undertaken formal investigation it must be made aware of the flooding, whether from officers, contractors, other risk management authorities or members of the public. An incident notification form exists for this purpose and is in Appendix G. People are encouraged to send in photographs with the form to aid the investigation.

10.2.18. In order to determine situations where formal investigation is necessary, Peterborough City Council has established thresholds. Flooding must meet the criteria set out below for a section 19 investigation to take place:

Thresholds for FWMA 2010 section 19 flood investigations

a) Internal flooding to any one dwelling
b) Internal flooding to more than one business premises
c) Flooding to any critical infrastructure or critical services
d) Flooding that causes significant disruption to a transport link for a defined period*

10.2.19. In d) above the definition of 'defined' period is dependent on the transport link affected. The following thresholds have been derived for each of the highway categories set out in the UKRLG Code of Practice for Highway Maintenance:

Table 10-3: Thresholds for the City Council to carry out and publish flood investigations

Category	Name	Description	Example	Duration of significant disruption to network
1	Motorway	Motorway	A1(M)	Over 1 hour
2	Strategic Route	Trunk roads and some principal 'A' roads	A15 Glinton Bypass, A1139 Fletton Parkway, A1260 Nene Parkway	Over 1 hour
3a	Main Distributor	Main urban network and inter-primary links	A605 Oundle Road, A15 Bourges Boulevard, A15 London Road	Over 4 hours
3b	Secondary distributor	Classified road: B and C class	B1443 Helpston, B1091 Peterborough Road Stanground, B1081 Old Great North Road Wothorpe, Taveners Road (C60), Eastfield Road (C51), Gresley Way (C299)	Over 4 hours
4a	Link Road	Roads linking the Main Distributor network to the secondary Distributor	Stamford Road Marholm (C40), Deeping Road Peakirk (C6), Oakdale Avenue Stanground, Hartwell Way Ravensthorpe, Werrington Bridge Road (C47)	Over 24 hours
4b	Local Access Road	Roads serving limited numbers of properties carrying only access traffic	Any small cul-de-sac or similar residential estate road	Over 24 hours

10.2.20. The City Council commits to starting the investigation within 30 days of the flood event. The investigation will be shared with the other risk management organisations and the results of the investigation will be published on PCC's website within six months of the date of the incident. No personal information will be included in the reports. Photographs supplied will not be included in the final report without the owners' permission.

Measuring the impacts of severe weather

Action reference	*Benefits to*
P2	E, L

10.2.21. In 2012 Peterborough City Council prepared a Local Climate Impacts Profile (LCLIP) which illustrates the effects that severe weather has had on City Council services over the years. The report set out that:

a) Between 2000 and 2012 a total of 220 media stories reported extreme weather events in Peterborough, with more than 500 consequences to city services and the wider community.
b) These consequences include impacts on transport systems, health and social systems and service provision.
c) Excessive rainfall/flooding and ice/snow are the most common events impacting city services, although hot weather and wind are also significant.
d) Severe weather events affect services both directly and indirectly and these events normally have cost implications, whether through direct action or lost opportunity costs. While some costs can be ascertained, the majority are not recorded in an accessible manner, or are hidden costs.
e) The financial impact of severe weather differs according to the services and weather types in question. Loss of income and increased costs are the most commonly associated with these events, in particular snow/ice, ground movement and excessive rainfall/flooding.
f) Existing budgets may not be able to cope with the expected increase in severe weather events and the resulting reactive works required. This makes the case for changing the way Peterborough approaches its work to make the City more resilient, rather than just focusing on post-event recovery and repair.

10.2.22. In order to be able to know how much to invest in more adaptable designs it is important to know what the costs of the severe weather impacts are. Therefore it is proposed that the Council adopts a severe weather recording system. One called SWIMS (Severe Weather Information and Monitoring System) has already been used by Kent County Council and al their emergency response partners. It has been very successful and now allows the organisations to collectively assess the costs of flooding, for example on staff resources and contractor availability, lost working hours, costs of repair and insurance claims.

Adapting to changes in climate and natural resource availability

Action reference	*Benefits to*
C10	H, B, N, L
P14	H, B, A, I, N, C, E, L, D
P23	E, N

10.2.23. As soon as possible the Council and its partners must also plan for change by developing an Adaptation Action Plan. The plan would need to look at changes to organisations' internal processes and to construction designs and methods so that companies, residents and public services can better cope with changing environmental and weather conditions. This would be made easier once better impact data has been collected through the implementation of a recording system as discussed in the previous paragraph. The LCLIP also noted that measures to adapt to and minimise the impacts of severe weather events require cross service collaboration. This demonstrates the need for a Peterborough-wide Adaptation Action Plan rather than just a City Council-based one, for example.

Asset register

Action reference	*Benefits to*
A7	E, L
A8	E, L
A9	E, L
A10	E, L
A11	L
A13	A, I

10.2.24. Section 21 of the FWMA 2010 requires the City Council to maintain a register of flood risk related structures. The legislation is provided below.

> **21 Lead local authorities: duty to maintain a register**
>
> (1) A lead local flood authority must establish and maintain—
>
> (a) a register of structures or features which, in the opinion of the authority, are likely to have a significant effect on a flood risk in its area, and
>
> (b) a record of information about each of those structures or features, including information about ownership and state of repair.
>
> (2) The Minister may by regulations make provision about the content of the register and record.
>
> (3) The lead local flood authority must arrange for the register to be available for inspection at all reasonable times.

Figure 10-3: Extract from the FWMA 2010

10.2.25. The asset register provides a useful tool for:

a) ensuring that members of the Flow Partnership are aware of important assets belonging to other partners e.g. in case it would be useful to link the maintenance or operation of them;
b) the Flow Partnership to identify areas where joint actions may need to be planned and funding sought
c) providing a list of significant assets in certain locations so that if and when flood events occur the Council can quickly identify what partner organisations it needs to consult and which partners may need to be part of any investigation undertaken (section 10.2.24)

10.2.26. It is intended that the asset register will be reviewed annually by the Flow Partnership to ensure it is both useful and up-to-date.

10.2.27. Several actions are included in the action plan with regards to gradually increasing the data held about assets in Peterborough. This will continue to improve the understanding of the level of flood risk and the condition of the assets beign used to manage this risk.

Sharing services

Relevant to most actions

10.2.28. Section 13(4) of the FWMA 2010 allows a risk management authority may arrange for a flood risk management function to be exercised on its behalf by another risk

management authority. The proposal, listed as an action in Appendix F is that when the Council has works to do that are close to the boundary of one of Peterborough's IDB areas or that the IDB can easily provide, that the Council uses them to deliver this function. This could for example be emergency maintenance, asset inspection and maintenance, or more significant watercourse works. The agreement clearly brings best value since the IDB costs would be cost recovery only. A guide agreement already exists and a formal agreement has already been made between the Environment Agency and various local IDBs to allow the IDBs to carry out works for the Agency that are of a common purpose and which relate to their respective risk management functions.

10.3. Management – Urban Peterborough

10.3.1. The soils underlying the urban area (and future urban extension area) of Peterborough are heavy clay with the characterised by Natural England as Bedfordshire and Cambridgeshire Claylands. The clay soils along with impermeable urban surfaces have so far acted to limited infiltration potential and increase surface runoff after heavy rain. The urban area of Peterborough also has many Main Rivers running through it. In and near to the floodplain the soil type is more consistent with sand and gravels and hence can also be susceptible to groundwater flooding. The varying sources of risk and the high number of sensitive receptors (homes, roads and other infrastructure) make it a key area for investment in flood risk management.

Comprehensive flood alleviation and water environment schemes

Action reference	*Benefits to*
P8	H, B, N, C, D
P9	B, I, D, N
P10	H, I, N
P16	H, C, N

10.3.2. At Brook Drain in North Bretton and at Paston Brook in North Ward, the Environment Agency intend to undertake specific projects to review Main River assets and how these are managed. These projects had already been identified by the Agency in the Welland CFMP but will also form part of the catchment based approach of the project described in the previous paragraph. At North Bretton changes proposed to the river by Network Rail will also drive a review of the Dukesmead Penstock and significant environmental improvements, while at Paston Brook the A47 culvert is being considered for improvement. The latter may have benefits for surface water flood risk as well as Main River risk due to nature of the catchment.

10.3.3. In Bretton North, Werrington North and Werrington South, a comprehensive water environment management project is underway which seeks to bring flood risk improvements as part of a wider scheme seeking improvements in the water quality, habitat, biodiversity and amenity value of water bodies. The project is focused on the Main Rivers of Brook Drain, Marholm Brook, Werrington Brook and Paston Brook, on Cuckoos Hollow lake and on the ordinary watercourses that are part of this sub catchment of the River Welland. This project has many themes including in-channel improvements, working with industry, working with farmers, looking for sewer misconnections and ensuring community involvement in improving their local environment. The project is already a fantastic example of

using a catchment based approach to maximise the deliverability of projects and multiple benefits. The involvement of many different organisations and community members in this project is what has made it a success so far.

10.3.4. In Dogsthorpe Ward a scheme is proposed to reduce the risk of surface water flooding to residential properties by increasing storage within the surface water network. The intention is to consider the retrofit of sustainable drainage systems, diverting and providing attenuation for excess flows that would otherwise put pressure on the surface water sewers. It is hoped to also provide a public amenity feature(s) and habitat as part of these works.

Understanding the risk and developing appropriate management

Action reference	*Benefits to*
P3	H, B
P6	H
P7	H, B
P11	H, B, E
P12	B
P22	H, L

10.3.5. A variety of projects have been proposed in the following urban wards in order to improve our understanding of the current and future risks: Fletton and Woodston, Orton Longueville, Orton Waterville, Ravensthorpe, Stanground Central and West Ward. These projects are about better understanding the risk, promoting awareness and resilience in the community and about investigating what other solutions might be deliverable to assist communities with protecting their properties. These areas do not rate as high flood risk areas in national assessments and hence will attract minimal Government funding. Working in partnership to identify alternative funding mechanisms for proposed solutions will be integral to these projects.

Understanding surface water flooding

Action reference	*Benefits to*
P2	E, L
C5	H, B, N, C, E, L
C6	H, B, I, E
C7	H, I
C11	H, I

10.3.6. Surface water flooding can occur anywhere and is often very localised. In order to try and improve our understanding and management of surface water Peterborough would benefit from increased data about rainfall both during and after the storms occur. The Fens and rural areas of Peterborough are home to several rain gauges managed by the Environment Agency and North Level District Drainage Board. However, the urban area has a lack of rain gauges. It is therefore proposed to install gauges on every school in Peterborough plus a few other sites where coverage is poor. These will serve two main functions, firstly real-time data to allow the City Council and its contractors to respond quickly, and secondly a bank of data that can be used to compare different locations and impacts. The data would be available for use (alongside other weather and air pollution data) in school science

and research projects to encourage children to take a close interest in their environment.

10.3.7. Engagement campaigns are proposed to promote awareness around issues that can increase the risk of surface water flooding. These issues are not unique to the urban area but they do cause a greater severity of problems here and hence it is proposed to focus this activity in the urban area initially to ensure best use of resources. Communications will cover:

a) the paving of front gardens;
b) looking after your sewers and spotting misconnections;
c) minimising flood risk from watercourses by keeping them maintained and clear or debris.

10.4. Management - Rural West

10.4.1. The Natural England National Character Area assessment of landscape types characterises this area as Rockingham Forest and Northamptonshire Vales (see Appendix A). Tree cover and large areas of woodland are a significant feature of the Rockingham Forest landscape but the Northamptonshire Vale area contains less in the way of the woodland cover which can bring valuable water quality and flood risk benefits by slowing down water. Pastoral and arable farming and water supply abstraction also shape the landscape of the Vales. Soil compaction and erosion contributes to rural runoff in some places and along with nutrient and pesticide loss into watercourses these factors can affect water quality. Soils vary from clay to more permeable limestone, the latter being more prone to groundwater movement. The Northamptonshire Vales contain the river valleys of the Nene and Welland and are important areas of habitat which need further protection. Most ordinary watercourses in the rural west are privately owned and hence riparian maintenance is very important. The City Council has taken on maintenance of the higher risk watercourses in this area, known as Parish Dykes.

Comprehensive flood alleviation and water environment schemes

Action reference	*Benefits to*
P5	H, B, I, N, C, D
P19	H, B

10.4.2. The Environment Agency previously carried out a study to look at the potential for additional storage along the Nene to assist with flood management. As the next stage of this work, the project is being broadened to include environmental as well as flood benefits. Although the scheme will be directed at achieving benefits in the Northamptonshire there may be knock on benefits downstream in Peterborough either for flood risk or for improvements to the natural environment. The scheme, known as the Middle Nene WFD and flood risk management project includes:

a) investigating the use of gravel pits and reinstated wetlands to attenuate and store water;
b) use of sustainable drain systems to mitigate flow and pollution issues;
c) modelling and mapping to quantify flood benefits, and
d) investigating measures to mitigate the impacts of climate change

10.4.3. A project has been proposed in the Environment Agency's Flood Risk Management Plan to develop a flood management scheme for Wansford. This will include a

comprehensive review of the risk and existing management assets and investigation of appropriate solutions. Funding needs to be sought for this scheme.

Riparian owner engagement

Action reference	*Benefits to*
C5	H, B, N, C, E, L

10.4.4. The FloW Partnership would like to work more closely with riparian owners in this area to share knowledge and experience, see if we can support each other and gain a better understanding of the different ordinary watercourses and private reservoirs that are present in Peterborough. Ensuring that water bodies are maintained to prevent flooding is crucial.

10.4.5. There are also other water management schemes that landowners in this area may have already been engaged in which bring a wide range of other benefits to Peterborough. Farm stewardship schemes encouraged by Natural England and Nene Park Trust seek to reduce soil erosion into nearby water bodies and therefore improve water quality. Anglian Water is also increasing the scale of its catchment advisory scheme which aims to help reduce the impacts of chemical fertilisers and pesticides in our water supply. It is important that any proposed new schemes with riparian owners are complimentary and do not create a burden for agricultural landowners or detract from these existing beneficial schemes.

10.4.6. Section 6.13 discussed the rights and duties of riparian owners. Ultimately the City Council, the Environment Agency and IDBs have powers under the Land Drainage Act 1991 that they can use where appropriate to require certain essential works to be carried out and to enforce prohibitions on obstructions being placed in watercourses. Legislation related to flytipping may also be used where this is appropriate. Any obstructions to the flow of watercourses could increase local flood risk.

10.5. Management - Fens

10.5.1. Peterborough's rural north and east are part of the wider Fens landscape area as described in Appendix B. The Fens is an intensively managed environment created in the 17th century from large scale drainage of the fertile peat soils. IDBs (IDBs) undertake specialist water management to maintain these areas. Their areas are split up into several pumped catchments, which are referred to as drainage districts. The actions listed in this section are specific to the area managed by Peterborough's IDBs.

Maintenance of Fen watercourses and structures

Action reference	*Benefits to*
A1	H, B, A, I, C
A2	H, B, A, I, C

10.5.2. Table 10-4 below illustrates the maintenance undertaken regularly by Peterborough's IDBs.

Table 10-4: Maintenance activities undertaken in IDB areas

Organisation	Location of activity	Maintenance activity	Average frequency
Internal Drainage Boards	Arterial ordinary watercourses within district	Vegetation management	Annually (More often for some watercourses that serve urban areas)
		De-silting	5-10 year rotation depending on watercourse
		Fallen trees and obstructions removed	As necessary
		Servicing of pumping stations by an engineer or pumping station attendant	Annually
		Test on pumping stations and defects noted and dealt with	Daily/weekly by a station attendant. Monthly by a Board engineer.
		Inspection of control structures by Board engineer	As required
	Landowner watercourses	Ratepayers and board members must notify IDB of any defects in assets	As soon as they are discovered

Works and asset upgrades

Action reference	*Benefits to*
P17	H, B, C
A13	A, I

10.5.3. Improvements are being proposed to Stewards House Drain in Thorney which drains surface water from an area of approximately 300 houses within the villages and from agricultural land. The Drain has been running at full capacity in recent years, overtopping into adjoining gardens and hence improvements are proposed to raise the standard of protection to prevent more significant flooding. This is a partnership scheme that has been submitted to the Medium Term Plan for Grant in Aid funding. Contributions are also coming from the Council, the Parish Council and the local school.

10.5.4. North Level Drainage Board and Peterborough City Council have also identified several culverts within the North Level area that could do with upgrades or improvement works. Partnership work is needed to first of all identify the ownership of the culverts. After this condition assessments are required and agreement is needed as to who will carry out the maintenance or upgrades required. This work will consider use the FWMA 2010 section 13 arrangement discussed in section 10.2.28 of the FMS.

Drainage district modelling

Action reference	*Benefits to*
A16	L

10.5.5. Welland and Deepings IDB and North Level District IDB have begun modelling their drainage districts in order to find out what the district wide standard of protection now is. Over the years the systems will have changed significantly with regular improvements being made. Therefore the SoP is hoped to be greater than the previously noted 1 in 50 (2%). The Action Plan includes an action to continue with this work, spread out over the next few years.

Counter Drain

Action reference	*Benefits to*
P18	A, I, N

10.5.6. There has been a desire for many years among partners to improve the resilience of the Counter Drain. This channel carries a small amount of surface water from the urban area but its principal use is to carry the treated water discharged from Flag Fen Water Recycling Centre. The Drain is in a poor state with slipped banks in some places and trees and weed growth causing obstacles in other areas. The flow in the drain is pumped and the water flows eventually into the Nene at the Dog in a Doublet sluice downstream of Peterborough city centre. A study has been carried out which demonstrates that when the pumps are working, despite the current condition of the drain, most of the time it does have capacity for the flows which it receives now and increased flows which may result from new development. However when the pumps fail in power cuts or due to their own flooding issues, water flows from the drain onto adjacent agricultural land. This has happened on several occasions and results in a measurable loss of potato crops for the landowner(s). Ideally the drain should be improved in partnership by all its riparian owners to prevent further decline and measures needs to be put in place to improve the resilience of the system with regards to pump failure There are however many obstacles to this work being carried out. These are outlined below and discussed in more detail in the Counter Drain Study:

e) The impacts of this flooding on agricultural land are not deemed significant enough by Partnership Funding guidelines for Peterborough to be able to secure GiA funding from Government.
a) Landownership (riparian ownership) is spread across several different partners including the Environment Agency, Peterborough City Council, businesses, Anglian Water and agricultural landowners.
b) The watercourse is not a Main River and so does not feature on the Environment Agency's regular maintenance schedule.

c) The watercourse is not designated as a public sewer and therefore is also not recognised by Ofwat, the Water Company regulator, as an asset which Anglian Water can significantly invest in.
d) The priorities for this watercourse are very different for each stakeholder.

10.6. Management - New Development

10.6.1. Although this section includes discussion of newly proposed actions that are Peterborough-wide, it has been separated out from the rest of the management chapters to make it easier to locate information relating to new development. It aims to give a brief overview of some of the current priorities for new development with regards to flood and water management. Before proposed actions are discussed the status of funding with regards to new development is confirmed.

Note about funding flood risk management schemes for new development

10.6.2. The Partnership Funding process described in section 8.2 will not fund flood risk management works to 'new' development. This is defined as any development built since 1st January 2009. This is because the appropriateness, design and safety of all new developments with regards to all sources of flood risk should have been fully considered as part of the planning process. If funding is required for schemes that relate to new development or redevelopment it will be sought through the Community Infrastructure Levy, Section 106 agreements, the Local Enterprise Partnership[8] or from organisations with an interest in the land or improved infrastructure. The potential for funding from CIL and S106 is explained further in the Peterborough Planning Obligations SPD (to be replaced by the Developer Contributions SPD in early 2015) available from the City Council's website.

10.6.3. The following schemes might be eligible to apply for use of Community Infrastructure Levy due to the delivery of reductions in flood risk to sites available for growth and regeneration in Peterborough: P4, P5, P8, P9, P10, P17, P18, P21)

Strategic Flood Risk Assessment

Action reference	*Benefits to*
D2	D

10.6.4. An update to our SFRAs is included in the FMS action plan. SFRAs should be updated regularly to ensure continued relevance with regards to changing flood zones and new flood risk data. Since the production of the Peterborough SFRA Levels 1 and 2 several new and/or updated data sets are available for use when planning new developments:

a) Publically available data about areas at risk of surface water flooding
b) Privately developed groundwater maps available for purchase
c) Information about the impacts of climate change on development sites particularly in the city centre.
d) Critical drainage areas

10.6.5. **Critical drainage areas** are recognised as areas in Main River Flood Zone 1 that actually have special drainage requirements. These can include:

[8] Greater Cambridge Greater Peterborough Enterprise Partnership http://www.gcgp.co.uk/

a) existing flood records
b) capacity issues which, with extra flows, would create increased surface water flood risk.
c) sensitive receiving environments
d) the potential for development to significantly change drainage patterns

10.6.6. The formal definition in the Town and Country Planning (General Development Procedure Amendment 2, England) Order 2006 for these is: *"an area within Flood Zone 1 which has critical drainage problems and which has been notified [to] the local planning authority by the Environment Agency".*

10.6.7. However with the introduction of the FWMA 2010, LLFAs are now the principal authority managing surface water flood risk and so it is more likely that LLFAs would need to identify these areas. The definition of critical drainage areas is therefore out of date. However given the current recognition of this term based on its original intention the City Council proposes to continue use of it in identifying areas that need further flood risk consideration during the planning process.

10.6.8. A review of Peterborough's critical drainage areas has been undertaken and a map of the new areas is included in Appendix HI. Critical drainage areas are identified in the following wards and locations:

a) Central (2)
b) Dogsthorpe
c) East (2)
d) Fletton and Woodston
e) Newborough
f) North Bretton (2)
g) North
h) Orton Waterville
i) Ravensthorpe
j) Stanground Central
k) West

10.6.9. These locations will also be included in the update to the Strategic Flood Risk Assessments.

Resilient development

Action reference	*Benefits to*
D1	D
D2	D

10.6.10. As development in low risk areas continues and the impacts of climate change on flood risk increases, land for development that is low risk will eventually be in short supply. Planning ahead for the future, it is important that the City Council and other risk management authorities agree what resilient development looks like in Peterborough. This will involve considering what makes appropriate access and egress routes for sites that are at risk of flooding, what emergency plans should consist of and the consideration of alternative designs that may be appropriate. This work will also link in with the development of an adaptation plan for Peterborough.

Flood and Water Management Supplementary Planning Document

Action reference	*Benefits to*
D3	D

10.6.11. This SPD is a formally adopted part of Peterborough's suite of planning policy documents. One of the principal actions set out in the FMS is to ensure that the SPD is used, understood and followed by planners working on new development. The SPD provides planning guidance on:

a) How to assess whether or not a site is suitable for development based on flood risk grounds.
b) The use of different sustainable drainage measures within Peterborough.
c) The protection of aquatic environments and how development can contribute positively to the Water Framework Directive.

Sustainable Drainage Systems

Action reference	*Benefits to*
D4	D
D5	D

10.6.12. Schedule 3 of the FWMA 2010 sets out a requirement for LLFAs to become Approving Bodies in a new sustainable drainage process for new development and redevelopment. This process would be separate from the planning process but has the potential to provide not only a clear process for managing surface water within and from developments, but also the certainty needed for both developers and local authorities in terms of the adoption and future maintenance responsibilities of new assets. Being a unitary authority which manages both planning and highways processes Peterborough City Council is confident it can provide an efficient process which would aid development. However implementation of Schedule 3 has now been delayed several times by Government; one issue being working out how to fund the maintenance of the new drainage systems. In July 2014 the UK Government issued a statement saying*: "The Government is committed to implementing SuDS as soon as possible but not in a way that affects development"*.

10.6.13. Regardless of the implementation of the SAB it is important that sustainable site drainage is given more consideration through the planning process. This is both to ensure that there will be no conflicts between what is agreed at planning and what will be needed for SAB approval but also to ensure that the benefits that SuDS can bring are achieved on our development and regeneration sites. The City Council and all of Peterborough's flood risk management organisations will continue to work closely with developers to improve the quality of drainage advice and design through the planning process. Planners and developers are referred to the Flood and Water Management SPD for guidance.

10.6.14. Peterborough City Council's new specific SuDS website will be available soon at www.peterborough-suds.org.uk. This site will provide comprehensive information for developers and others needing to consider site drainage in Peterborough. In the meantime information is available at www.peterborogh.gov.uk/sustainabledrainage.

Works to watercourses – byelaws, consents and culverts

10.6.15. If it is proposed to undertake construction within the locality of, including over, under and within, a watercourse a specific consent is needed from one of Peterborough's flood and water management organisations. This consent is not included within planning permissions but may be sought at the same time. The type of consent required and the distance from the watercourse for which it is needed depends on what area of Peterborough the site is in and the classification of the watercourse. The requirements are set out clearly in chapter 8 of the Flood and Water Management SPD.

10.6.16. It is the Flow Partnership's intention to ensure that such works have clearly included consideration of the environmental impacts in terms of biodiversity, habitat and water quality. Therefore example assessments that may be required in order for Land Drainage Consent to be granted for works to an ordinary watercourse, would be a water vole survey or a Water Framework Directive assessment.

10.6.17. The Council seeks to avoid culverting and its consent (see section 10.6.17) will not normally be granted except where there is a clearly demonstrated need to enable access. Further to this where the Flow Partnership progresses projects in areas where culverts already exist, alternative options for the culverts will be considered as part of the development of these schemes. If there is an appropriate option to enable the culvert to be daylighted (removed) then this will rate as a high priority.

11. Monitoring and Review

11.1.1. The FloW Partnership meetings will provide a method for monitoring the progress on activities listed with the FMS's action plan. Actions will be rated as:

i. Completed (in which case they will be moved to the other spreadsheet) - blue
ii. On target – dark green
iii. Progress - light green
iv. Some obstacles - yellow
v. At risk – red
vi. Not started - white

11.1.2. The Partnership will then be able to work together to try and progress past any arising barriers to ensure that schemes can be delivered. Part of the process will also be about ensuring that the actions do deliver the FMS objectives.

11.1.3. The FMS should be updated every 5-6 years. The FloW Partnership may wish this to be done to best co-ordinate with updates to the Environment Agency's Flood Risk Management Plans. Some of the background sections may change very little but updates may be needed to the risk, climate change and management chapters.

11.1.4. It is intended that the Action Plan will be reviewed every year at a FloW Partnership meeting alongside monitoring progress on the existing actions.

12. Glossary and References

12.1. Glossary

Term	Explanation
Annual flood probability	The estimated probability of a flood of given magnitude occurring or being exceeded in any year, expressed as, for example, a 1 in 100 or 1% chance.
Asset Management Period (AMP)	The five year business planning period for UK water companies as set by the regulator, OfWAT. AMP 5 is 2010-2015, AMP 6 is 2015-2020 and AMP 7 is 2020-2025.
Aquifer	Layer of water-bearing permeable rock, sand, or gravel which is capable of providing significant amounts of water
Climate Change	A change of average global climate caused by an alteration of the composition of the atmosphere that is due directly or indirectly to human activity and is in addition to natural climate variability.
Combined sewer overflow	Overflow that might be needed to prevent internal flooding of foul water. During intense rainstorms, when combined sewerage system can reach capacity diluted but untreated wastewater can be discharged from these overflows into a watercourse.
Combined sewer system	Sewer system that carries both foul water and rainwater
Community Infrastructure Levy	The Community Infrastructure Levy (CIL) is a new levy that local authorities in England and Wales can choose to charge new developments in their area to help pay for infrastructure which is needed to support those developments. CIL can be used to fund a wide variety of infrastructure including transport schemes, flood defences, schools, hospitals, parks, leisure centres etc.
Community Related Asset (CRA) land and dykes	Strips of land transferred from the Development Corporation, when it closed, to the City Council. Much of this land contains watercourses known as CRA dykes.
DG5 register	Register of properties at risk of internal sewer flooding. Register maintained by the sewerage undertaker at the requirement of their regulator, Ofwat.
Flood risk	An expression of the combination of a flood probability and the magnitude of the potential consequences of a flood event.
Floodplain	Area of land that borders a watercourse over which water flows in time of flood, or would flow but for the presence of defences.

Flood Zones	Flood Zones are defined in Government's National Planning Policy Framework. They indicate land at risk by referring to the probability of flooding from river and the sea, ignoring the presence of defences.
Highway authority	An organisation with responsibility for maintenance and drainage of highways
Infiltration	The passage of surface water through the surface of the ground
Lead Local Flood Authority	A Unitary or County Council
Local Levy	A sum collected annually by the Regional Flood and Coastal Committee from all Lead Local Flood Authorities in the region under the FWMA 2010 and the Environment Agency (Levies) (England and Wales) Regulations 2011.
Main River	A designated watercourse shown on the official Main River maps
Ordinary watercourse	Any watercourse which is not a Main River
Regional Flood and Coastal Committee	A committee established by the Environment Agency under the Flood and Water Management Act 2010 that brings together the Agency, members from Lead Local Flood Authorities and independent members with relevant experience
Scheduled Monuments	Archaeological sites or historic buildings considered to be of national importance.
Stakeholders	Individuals and organizations that are actively involved in a project, or whose interests may be affected as a result of the project execution
Sustainable Drainage Systems	Concept of surface water drainage which takes into account the quantity and quality of runoff, and the amenity value of surface water in the urban environment. The main focus is on source control and the mimicking of natural processes.
Unitary Authority	A local authority that is one-tier and has no separate County Council
Watercourse	A natural or artificial channel that conveys surface water

12.2. Acronym glossary

AMP	Asset Management Period
Anglian RMBP	Anglian River Basin Management Plan
AW	Anglian Water
CCC	Cambridgeshire County Council
CCTV	Closed Circuit Television
CFMP	Catchment Flood Management Plan
CIL	Community Infrastructure Levy
CPLRF	The Cambridgeshire and Peterborough Local Resilience Forum
CRA dyke	Community Related Asset dyke
Defra	Department for Environment, Food and Rural Affairs
DPD	Development Plan Document
EA	Environment Agency
EU	European Union
FloW Partnership	Peterborough Flood and Water Management Partnership
FRA	Flood Risk Assessment
FRMP	Flood Risk Management Plan
FMS	Peterborough Flood Risk Management Strategy
FWMA 2010	Flood & Water Management Act 2010
GHG	Greenhouse Gas
GiA	Grant in Aid
IDB	Internal Drainage Board
IPCC	Intergovernmental Panel on Climate Change
LCLIP	Local Climate Impacts Profile
LDF	Local Development Framework
LLFAWD IDB	Lead Local Flood Authority
LPA	Local Planning Authority
MLC	Middle Level Commissioners
MP	Member of Parliament
NCC	Northamptonshire County Council
NLD IDB	North Level District Internal Drainage Board
NPFF	National Planning Policy Framework
OfWAT	Water Services Regulation Authority (was the Office of Water Services and the previous acronym has remained)
OM	Outcome Measure
PCC	Peterborough City Council
PFRA	Preliminary Flood Risk Assessment
RFCC	Regional Flood and Coastal Committee
RMA	Risk Management Authority
RNRP	River Nene Regional Partnership
SAB	SuDS Approving Body
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SFRA	Strategic Flood Risk Assessment
SuDS	Sustainable Drainage Systems

SoP	Standard of Protection
SPA	Special Protection Area
SPD	Supplementary Planning Document
SSSI	Sites of Special Scientific Interest
SWIMS	Severe Weather Information and Monitoring System
SWMP	Surface Water Management Plan
UKCIP	United Kingdom Climate Impact Profile
UKCP09	United Kingdom Climate Projections 2009
UKRLG	United Kingdom Roads Liaison Group
uFMfSW	updated Flood Map for Surface Water
WFDGiA	Water Framework Directive Grant in Aid
WFD	Water Framework Directive
W&D IDB	Welland and Deepings Internal Drainage Board
WVP	Welland Valley Partnership

12.3. References

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13. List of Appendices

Appendix A – Natural England's National Landscape Character Areas

Appendix B – The Fens

Appendix C – Map of Internal Drainage Boards

Appendix D – Risk Matrix Method

Appendix E – Completed Action Plan

Appendix F – Plan of Proposed Actions

Appendix G – Flood Incident Notification Form

Appendix H – Critical Drainage Areas

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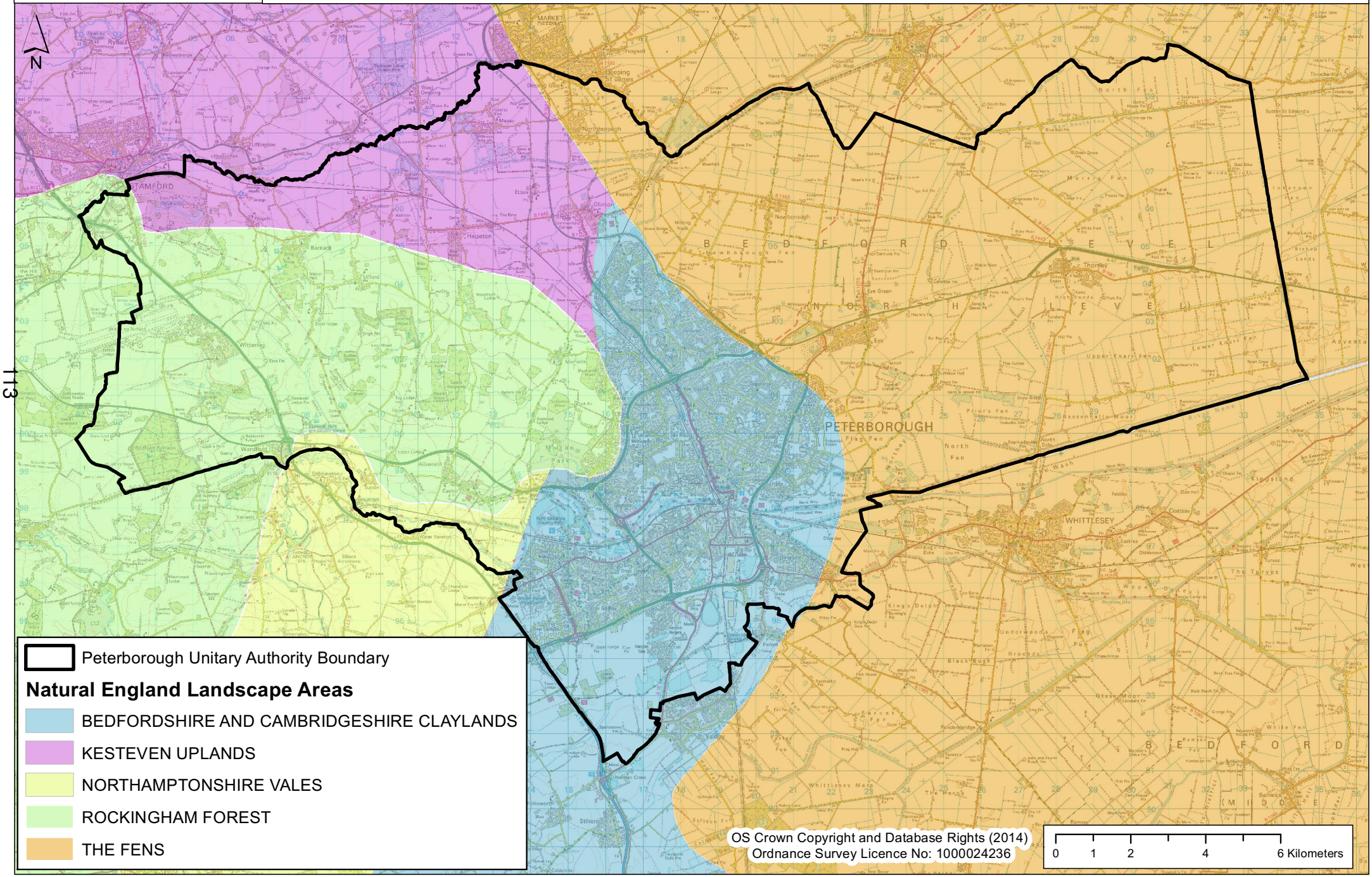
Appendix A - Natural England Landscape Areas



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Appendix B

1.1. Introduction to the Fens Area

1.1.1. The Fens cover a large area of eastern England, stretching from the Wash out to Lincoln, Peterborough and Cambridge (see figure B1). Five different rivers – the Witham, Welland, Glen, Nene and Ouse, carry water from surrounding uplands through the Fens and into the Wash.

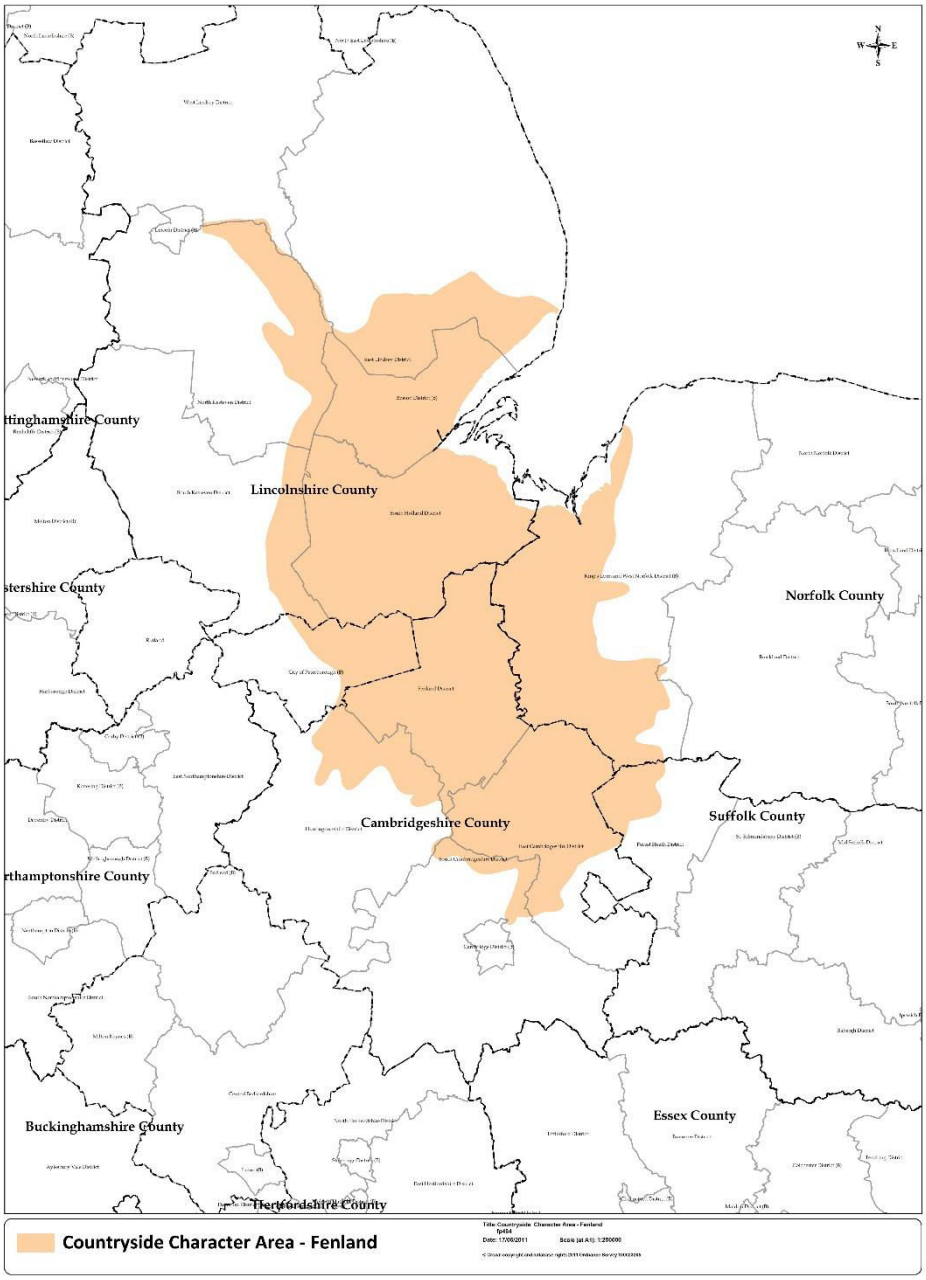

Figure B1: The position of the Fens in eastern England.

1.2. Background to the Fens

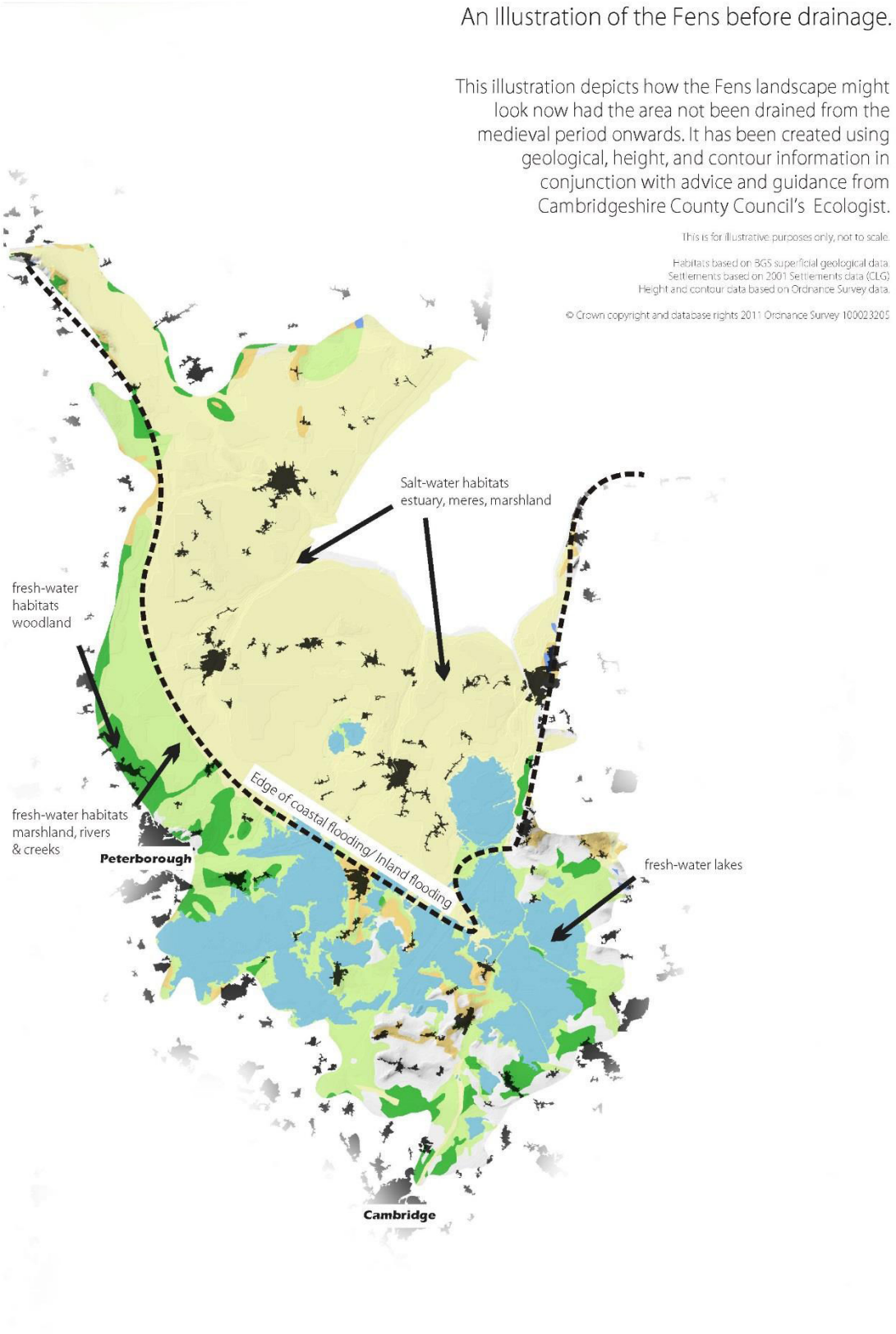

Figure B2: All illustration of the Fens before drainage

1.2.1. Localised drainage took place in the fenland landscape from as early as the medieval period. However, large scale drainage of the Fens first began in the 17th

Century, when the 'Fens' as we now know it began to take shape. Today this artificially drained landscape is home to approximately half a million people. The Fens cover an area of almost 1,500 square miles, divided between eleven District and five County Councils. For comparison, figure B2 depicts how the Fens landscape might look now had the area not been drained from the medieval period onwards.

1.2.2. Well maintained coastal and fluvial flood defences are essential to providing the conditions in which Internal Drainage Boards can maintain extensive artificial drainage of the area. Across the Fens, IDBs maintain 3,800 miles of watercourse, 200 miles of watercourse embankment and 286 pumping stations. Coupled with over 60 miles of coastal sea walls and 96 miles of river embankments, the Fens has a high level of protection, and is classified as a defended flood plain. Climate change, however, poses a serious threat to the Fens and a continued programme of investment in flood defences and drainage systems will be needed for existing standards of protection, including provision for climate change, to be maintained in the medium and long term.

1.2.3. The Internal Drainage Boards within the Fens have been established over many years because of the special water level and drainage management needs existing within this area, and the particular need for lowland and inland local flood risk management activities. These local works are funded in the main from funds levied locally by IDBs, and present an effective example of the Government's 'localism' agenda.

1.2.4. It is essential for the promotion of sustainable growth that coastal defences and the extensive drainage infrastructure behind them are well maintained. Housing, jobs and services that meet the needs of the market towns and the rural communities can only happen if drainage and flood risk is well managed. Growth in the Fens will need to be embraced in a sustainable way; balancing development needs with the need to promote and protect open spaces, natural habitats, landscapes, the built environment and the unique qualities of the Fens. It is therefore essential that 'Flood Risk Management Authorities', utilities and local communities continue to work closely with local planning authorities, so that consideration of sustainable drainage in particular and flood and water management in general are an integral part of the planning and development control process.

1.2.5. Farming contributes significantly to the success of the local economy, supporting a large number of businesses involved in the production of food and rural tourism. The important role that farming plays in the Fens is emphasized by the steady decline in self-sufficiency in the UK, and the Government's renewal of the food security agenda. The Fens account for 50% of all Grade 1 agricultural land in England, producing 37% of all vegetables and 24% of all potatoes grown in the country, as well as enough wheat to make 250 million loaves of bread every year.. The area also supports significant livestock, dairying and outdoor pig production as well as about 18 million hens, ducks, turkeys and geese in the Lincolnshire Fens alone. This supports a large well-established food processing industry. It is critical, therefore, that appropriate flood risk and drainage management measures are taken to protect this nationally important food production area.

1.2.6. In addition to food production, the Fens is popular for tourism, attracting more than 15 million visitors a year. The Fens provide a unique and rich habitat for wildlife and include the Ouse and Nene Washes which while providing flood storage capacity, also retain important wetland for birds. There are also major transport networks, road and rail, as well as houses, critical infrastructure, water, gas and electricity that

would be affected if fenland areas were to flood. The Fens also contain heritage sites and form three sides of the Wash, which is internationally designated for animal and plant biodiversity. There are also numerous local sites, ranging from SSSIs to Local Nature Reserves which need to be protected.

Management plans for the Fens

1.2.7. The Environment Agency previously developed Catchment Flood Management Plans for the Anglian Region with the aim of taking a broad view of flood risk at catchment level over the next 100 years. Factors such as climate change, future development and changes in land use and land management were taken into account in developing sustainable policies for managing flood risk in the future.

1.2.8. The Fens area is covered by four different Catchment Flood Management Plans (CFMPs); one for each of the fenland catchments of the Nene, Welland and Glen, Witham and Great Ouse and also by the Wash Shoreline Management Plan (SMP). All five plans recommended that an integrated plan is produced specifically for the Fens in order to develop a sustainable, integrated and long term flood risk management approach for this landscape area. There was also a need for any future plan to bring together organisations and other plans and projects from across the Fens.

1.2.9. Since the development and approval of the CFMPs, the legislative framework for flood risk management landscape has changed considerably, providing opportunities to develop a more integrated approach to upland and lowland flood risk and drainage management from all sources. The introduction of the duties for LLFAs to produce local flood risk management strategies and the Environment Agency to produce flood risk management plans provides an opportunity for integrating and delivering the aims for the Fens.

1.2.10. Local flood risk management strategies and flood risk management plans need to integrate the needs and opportunities of the local Fens and fenland communities with those of the rest of the local LLFA area while also promoting a consistent approach across the Fens as a whole. This consistency is crucial, for example, to IDBs, who often span more than one local authority and whose practices will be similar throughout their area. The LLFAs of Lincolnshire, Peterborough, Cambridgeshire, Norfolk and Suffolk have therefore agreed to work together closely to achieve this aim. Forest Heath District Council has been involved on behalf of Suffolk County Council since Suffolk's fenland is principally located in this area.

Aspirations

1.2.11. To reflect the importance of the Fens as a highly productive and precious resource the following joint aspirations have been identified for the wider area in respect of flood risk and drainage management:

i. Continue to ensure that appropriate flood risk and drainage management measures are taken to protect the nationally important food production areas in the Fens
ii. Ensure that where appropriate, current levels of protection are maintained in the Fens taking into account climate change
iii. Manage flood risk and drainage in accordance with principles of sustainable development
iv. Ensure that development is undertaken appropriately, so that adverse consequences of flood risk are not increased

v. Contribute towards the protection and enhancement of the environmental heritage and the unique landscape character of the Fens including biodiversity;
vi. Support promotion and use of the waterways and other areas in the Fens for tourism and recreation
vii. Develop effective dialogue with local communities to facilitate their involvement in flood risk management in the Fens;
viii. Work with local planning authorities to help them grow the economy in the Fens, through the early consideration of flood and water management needs.

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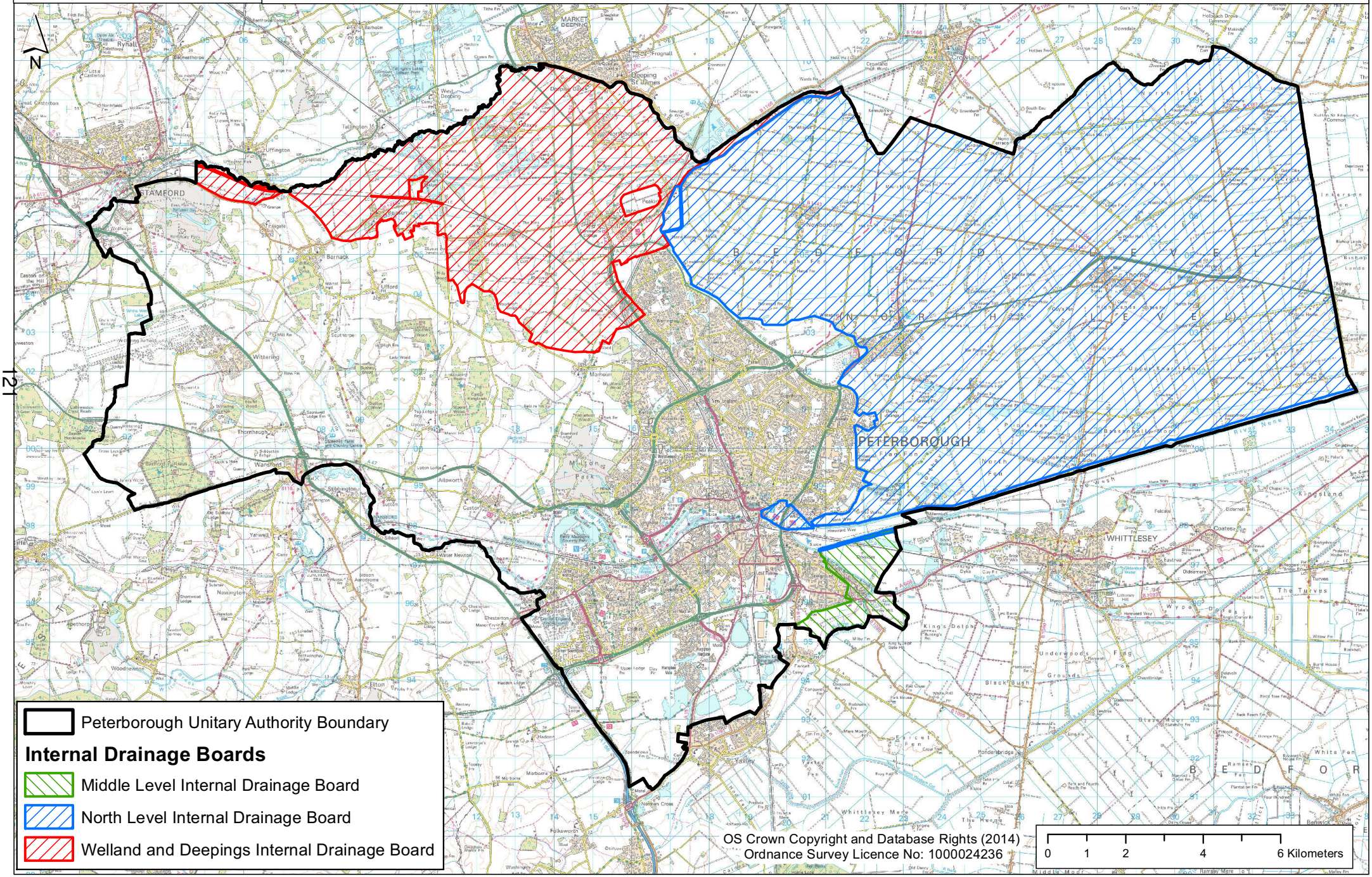
Appendix C - Internal Drainage Boards



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Appendix D

1.1. Risk calculation

To give an overall perspective of flood risk in Peterborough, each type of flooding (referred to here as the hazard) has been rated according to the average likelihood and the expected impacts of that type. The results are set out in table C1 in the main report based on a risk matrix calculation. This appendix shows the categories for likelihood, impact and risk that were used for this calculation. The likelihood categories have been developed based on the Environment Agency's classification bands for flood risk. For each source of flood risk, where the risk in Peterborough from this source spans more than one band the highest likelihood band has been chosen.

1.2. Likelihood

After the hazard has been identified, the likelihood of it occurring each year is calculated. The following table outlines the five different probability categories ranging from low to high.

Table C1: Likelihood score

Level	Descriptor	Likelihood, written as annual probability	
		Annual probability	Annual probability as a percentage chance
5	High	1/30 ≤ X <1	3.3% ≤ X < 100%
4	Medium	1/100 ≤ X< 1/30	1% ≤ X< 3.3%
3	Medium-Low	1/200 ≤ X < 1/100	0.5% ≤ X < 1%
2	Low	1/1000 ≤ X < 1/200	0.01% ≤ X < 0.5%
1	Very Low	1/10000 ≤ X < 1/1000	0.001% ≤ X < 0.01%

1.3. Impact

The following table sets out the Health, Social, Economic and Environmental impact for each impact level. When scoring the overall impact level of a type of a flooding the highest relevant impact (health, social, economic or environmental) level was recorded.

Table C2: Impact explanation

Impact category	Meaning
Health – casualties	Injuries directly attributable to the emergency
Health – fatalities	Deaths directly attributable to the emergency
Social	The social consequences of an event, including availability of social welfare provision; disruption of facilities for transport; damage to property; disruption of a supply money, food, water, energy or fuel; disruption of an electronic or other system of communication; homelessness, evacuation and avoidance behaviour; and public disorder due to anger, fear, and/or lack of trust in the authorities
Economic	The net economic cost, including both direct (e.g. loss of or damage to goods, buildings, infrastructure) and indirect (e.g. loss of business, increased demand for public services) costs

Environmental	Disruption to or destruction of plant or animal life, contamination or pollution of land, water, or air, with harmful biological/chemical/radioactive matter or oil.

Table C3: Impact scores

Level	Health – casualties	Health – fatalities	Social	Economic (£)	Environmental
1	0-5	0	Limited	Thousands	Insignificant
2	6-10	0	Some / local	Millions	Minor
3	11-50	1-20	Moderate / local – medium to long term	Tens of millions	Limited – long/short term
4	51-200	21-50	Significant local / local and regional	Hundreds of millions	Significant – medium/long term
5	200+	151	Severe local, regional and national	Billions	Serious long term

1.4. Risk calculation

The risk matrix combines both the score from impact and likelihood to give an overall score for the area from a particular known hazard. The numbers correspond to the overall risk rating given in the Peterborough Flood Risk Management Strategy.

Table C4: Risk matrix

Catastrophic 5	**Impact**	5	10	15	20	25
Significant 4		4	8	12	16	20
Moderate 3		3	6	9	12	15
Minor 2		2	4	6	8	10
Insignificant 1		1	2	3	4	5
		Likelihood				
		Very Low 1	Low 2	Medium - Low 3	Medium 4	High 5

Overall Risk Rating	Low 1-5	Medium 6-9	High 10-14	Very High 15+

Appendix G - Flood Incident Notification Form

Please note that the Peterborough thresholds for the investigation under section 19 of the Flood and Water Management Act 2010 are set out at the end of this form.

Incident notification being sent to Peterborough City Council by:

These details will not be included in the published results

INDIVIDUAL OR ORGANISATION	✓	INDIVIDUAL OR ORGANISATION	✓
Peterborough Resident		North Level District IDB	
Peterborough Business		Peterborough City Council officer	
Anglian Water		Peterborough City Council call centre	
Cambridgeshire Fire and Rescue		Peterborough Highway Services	
Cambridgeshire Police		Welland and Deepings	
Environment Agency		Whittlesey and District	
Middle Level Commissioners		Other (please specify)	

NAME OF PERSON REPORTING	TELEPHONE	EMAIL ADDRESS

Incident details

Question number	Question	Response
1	Date and time	
2	Name and contact details of person reporting incident *(in case we have to check further details later on e.g. officer or resident details)*	
3	Location of flooding. *e.g. 1 Beasley Road, Bretton* *Must include a clear address, or landmark (such as or the junction of X and Y roads or outside Z school) or will be rejected. By the bus stop on Thorpe Rd is no good!*	
4	Depth and extent of water *e.g. within highway, up to properties or inside properties*	`

Question number	Question	Response
5	Duration of flooding *e.g. if residents tell you it has been like that for 2 hours*	
6	Suspected cause of flooding *e.g. from sewers, river*	
7	**Other notes** *e.g.* • *any significant weather to note* • *has this happened before* • *is it getting worse?*	

Initial flood category rating

Category	Description	Tick relevant category based on information above
1	Meets a PCC threshold	
2	Doesn't meet a PCC threshold but flooding is very close to a property or with fair chance of reaching property with similar future rain events e.g. within property boundary	
3	Flooding within carriageway or within a field with low chance of reaching property	

Peterborough City Council thresholds (for information)

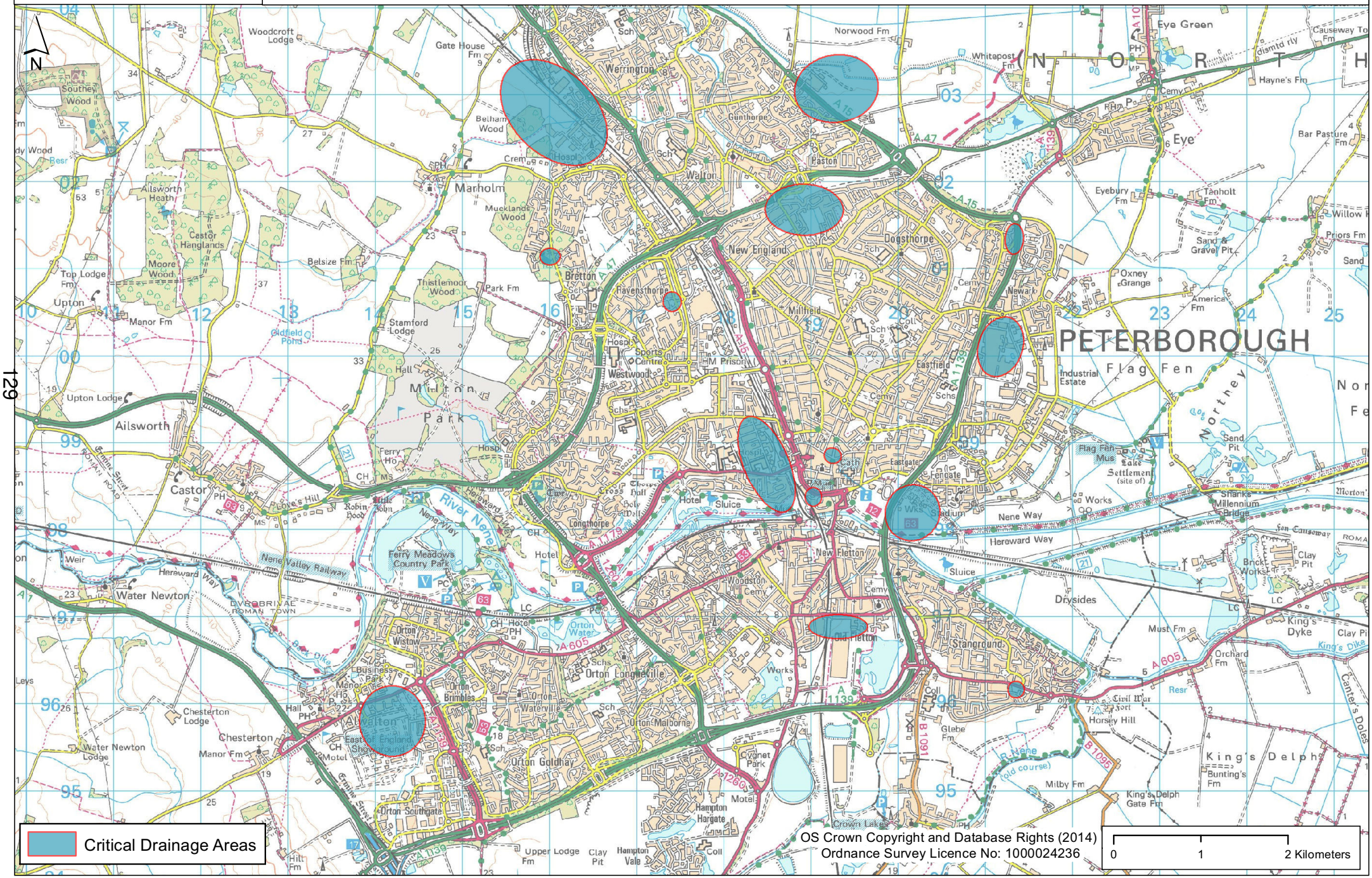
1. Flooding internally to one or more residential properties
2. Flooding to critical infrastructure (e.g. electricity substation)
3. Flooding to five or more commercial properties
4. Flooding which causes a transport link to be totally impassable for a significant period*
5. Reoccurring flooding on five or more occasions over a period of separate flood events of strategic highway routes or within property boundaries

For the purposes of threshold 4 above the definition of "significant period" is dependant on the transport link affected. The highway categories are as set out in Table 1 of the UKRLG Code of Practice for Highway Maintenance, but the timings for significant period have been derived for the purpose of the Local Flood Risk Management Strategy They are as follows:

- Category 1 Motorway - over 2 hours
- Category 2 Strategic Route (Trunk Roads and some Principal "A" roads) – over 4 hours
- Category 3a Main Distributor (Major Urban Network and Inter-Primary Links) – over 4 hours
- Category 3b Secondary Distributor (Classified Road (B and C class) – over 10 hours
- Category 4a Link Road (Roads linking the main distributor network to the Secondary Distributor) – over 10 hours
- Category 4b Local Access Road (Roads serving limited numbers of properties carrying only access traffic) – over 24 hours

PETERBOROUGH CITY COUNCIL

Appendix H - Critical Drainage Areas



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Appendix E: Completed Actions

Action Name	Action Reference	Ward	Manage-ment Area	Action Description	Lead Partner	Other Partners	Risk source	Funding Source	Cost (£)	FMS Objectives				Progress
										1	2	3	4	
Parish Dykes	**A**	Several Wards	RW & U	Asset survey of Parish dykes	PCC	-	Ordinary watercourse	PCC	10 - 50 k	1				**Completed**
CPLRF	**C**	All	P-wide	Strengthen relationships within the Cambridge and Peterborough Local Resilience Forum	PCC	LRF		PCC, CPLRF	Staff-time		2			**Completed**
Staffing 1	**D**	All	P-wide	Creation of Flood and Water Management Officer post	PCC	-	All	PCC	10 - 50 k	1	2	3	4	**Completed**
Staffing 2	**D**	All	P-wide	Creation of a Drainage Team - recruitment	PCC	-	Surface water	PCC	50 - 100 k	1	2	3	4	**Completed**
Planning	**D**	All	P-wide	Improve consideration of drainage in planning considerations - greater involvement of PCC Drainage Team and raising awareness of future sustainable drainage requirements	PCC	-	Surface water	PCC	Staff-time	1				**Completed**
Training	**D**	All	P-wide	Training of Drainage Team and all council officers to be involved in sustainable drainage processes	PCC	-	All	PCC	≤ 10 k	1				**Completed**
Planning policy	**D**	All	P-wide	Development, adoption and implementation of Flood and Water Management Supplementary Planning Document as part of planning policy framework.	PCC	FloW Partnership	Main river & surface water	PCC	Staff-time	1			4	**Completed**
SuDS software	**D**	All	P-wide	Purchase new software to manage SuDS inspection and adoption process	PCC	-	Surface runoff, ordinary watercourse, groundwater	PCC	10 - 50 k		2			**Completed**
Land Drainage Consent	**D**	All	U & RW	Establish a Council system for approval of third party works on ordinary watercourses and raise awareness among planners and develoeprs	PCC	-	Ordinary watercourse	PCC	Staff-time	1			4	**Completed**
Padholme	**D**	East	U & RNE	Put in place final proceses for completing the conditions of the Padholme Catchment agreement	PCC	HCA, EA, NLD IDB	Main river & ordinary watercourse	Padholme Agreement (HCA)	Staff-time		2			**Completed**
Partnership creation	**C**	All	P-wide	Create Peterborough Flood Risk Partnership	PCC	FloW Partnership	All	PCC	Staff-time		2			**Completed**
RFCC input	**C**	All	P-wide	Strengthen the involvement of PCC in the Regional Flood and Coastal Committee - regular attendance, amended voting regime, officer attendance	PCC	EA	All	PCC, RFCC	≤ 10 k	1	2	3	4	**Completed**
Keep it Clear Central Ward	**C**	Central Ward	U	Reduce the chance of sewer flooding in Central Ward - Keep it Clear campaign, working with businesses and residents to keep fats, oils , greases and rag out of sewers.	AW	-	Foul sewer	AW	10 - 50 k	1		3		**Completed**
Keep it Clear Stanground	**C**	Stanground Central	U	Reduce the chance of sewer flooding in Stanground Central Ward - Keep it Clear campaign, working with businesses and residents to keep fats, oils , greases and rag out of sewers.	AW	-	Foul sewer	AW	10 - 50 k	1		3		**Completed**

Insurance	**C**	All	P-wide	Stay abreast of changes to the flood insurance situation; keep flood wardens up-to-date, develop procedure for residents with insurance queries and lobby with the RFCC for improvements.	FloW Partnership	-	All	PCC	Staff-time	1				**Completed**
Surface water maps	**C**	All	P-wide	Develop and publish first set of surface water maps on Environment Agency website (uFMfSW)	EA	-	Surface runoff	EA	50 - 100 k	1		3		**Completed**
Main River Map update	**C**	All	P-wide	Publish new format Main River flood risk maps on Environment Agency website	EA	-	Main river	EA	10 - 50 k	1		3		**Completed**
Flood Fair	**C**	West Ward	U	Work with Flood Wardens and community to put on a Flood Fair in Thorpe Meadows	Flood Warden(s)	FloW Partnership	All	EA, PCC, Community, Ramada Hotel	≤ 10 k	1		3		**Completed**
PCC flood and water website	**C**	All	P-wide	Keep Flood and Water website up-to-date and useful	PCC		All	PCC	Staff-time	1				**Completed**
SuDS website	**C**	All	P-wide	Develop new SuDS website (microsite)	PCC	-	Surface runoff, ordinary watercourse, groundwater	PCC	≤ 10 k	1			4	**Completed**
North Bank Highway Protocols	**C**	Eye and Thorney	RNE	Review of Highway Protocol document relating to closures of North Bank caused by flooding	PCC	EA	Surface runoff	PCC	Staff-time		2	3		**Completed**
FloW Partnership	**C**	All	P-wide	Change function of Peterborough Flood Risk Partnership to cover all water issues - becoming the Peterborough Flood and Water Management (FloW) Partnership	PCC	FloW Partnership	All	PCC	Staff-time		2		4	**Completed**
ADA Demo	**C**	Eye and Thorney	RNE	ADA Demonstration Event to raise awareness of IDB roles and drainage capabilities and equipment	NLD IDB	FloW Partnership	Ordinary watercourse	NLD IDB, ADA, many other organisations	10 - 50 k	1				**Completed**
Werrington Brook	**P**	North Bretton, Walton, Werrington North, Werrington South	U	Werrington Brook Improvements Project - Feasibility Study	PCC	EA, WVP, WNC	Main river & surface runoff	WVP, EA, PCC	10 - 50 k				4	**Completed**
SWMP	**P**	All	P-wide	Improving baseline knowledge about surface water flood risk through the Surface Water Management Plan process - feeds directly into development of the Peterborough Flood Risk Management Strategy. Includes identification of partner roles, existing maintenance, hotspots, key actions required etc.	PCC	FloW Partnership	Surface runoff	Defra	10 - 50 k	1	2	3		**Completed**
Corporate Tactical Team	**P**	All	P-wide	Improve and implement internal emergency planning procedures across the Council - Establish a council Tactical Team of officers who can co-ordinate /prepare for any emergency	PCC	-	All	PCC	Staff-time					**Completed**
Red Cross support	**P**	All	P-wide	Develop relationship with the Red Cross to enable improved recovery procedures and facilities.	PCC	LRF	All	PCC	Staff-time		2			**Completed**
Flood wardens	**P**	All	P-wide	Increase the number of Peterborough flood wardens	PCC	EA	All	EA,PCC	Staff-time	1	2	3		**Completed**

Test emergency plans	**P**	All	P-wide	Cary out response exercises with other emergency responders and services	CPLRF	-	All	CPLRF	10 - 50 k		2			**Completed**
Whitecross subway	**P**	Ravensthorpe and Bretton North	U	Flood reduction scheme in Whitecross subway	PCC	-	Surface runoff	PCC	£5,000			3		**Completed**
Rural highway drainage assets	**P**	Several wards	RW & RNE	CCTV surveys of rural highway assets	PCC	-	Surface runoff, ordinary watercourse, groundwater	PCC	10 - 50 k	1	2			**Completed**
New England sewers	**P**	North Ward	U	Investigate and resolve flooding issues in New England - large scale cleanse of sewers along Lincoln Road and removal of tree roots from surafce water sewer under A47	AW	FloW Partnership	Foul and surface water sewers	AW	10 - 50 k			3		**Completed**
Ham Lane ditch	**P**	Orton Waterville	U	Ham Lane ditch works	PCC	-	Ordinary watercourse	PCC, NPT	≤ 10 k			3		**Completed**
Upton highway drainage works	**P**	Glinton and Wittering	RW	Jetting and cleansing of the highway drainage system, Church Walk, Upton	PCC	-	Surface runoff	PCC	≤ 10 k			3		**Completed**
Gully connection investigations	**P**	Several Wards	U	Investigations of problem gully lateral connections - various locations	PCC	-	Surface runoff	PCC	≤ 10 k	1				**Completed**
CCTV and root cutting various	**P**	Several Wards	P-wide	CCTV and root cutting, cleansing at Cannons Barn Farm Lincoln Road Werrington, Rectory Lane Etton and Church Walk Marholm.	PCC	-	Surface runoff, ordinary watercourse, groundwater	PCC	≤ 10 k	1		3		**Completed**
Monarch Avenue	**P**	Stanground Central	U	Monarch Avenue CCTV and cleansing	PCC	-	Surface runoff	PCC	≤ 10 k	1		3		**Completed**
Stewards House Drain	**P**	Eye and Thorney	RNE	Stewards House Drain surveys, investigation and scheme design	NLD IDB	PCC	Ordinary watercourse	NLD IDB, PCC	≤ 10 k		2	3		**Completed**
Parkway drains	**P**	Several wards	U	Major cleansing and de-rooting programme of parkway highway drains	PCC	-	Surface runoff	PCC	50 - 100 k	1		3		**Completed**
Nene measurement boards	**P**	West Ward, Central Ward	U	Nene measurement boards at Thorpe Meadows and Town Bridge	PCC	-	Main river	PCC	≤ 10 k	1				**Completed**
Dams Pond de-silt	**P**	West	U	De-silting of Dams Pond	PCC	-	Ordinary watercourse	PCC	10 - 50 k			3		**Completed**
Racecourse Drain	**P**	East	U	De-silting culverted and open sections of Racecourse Drain - two phases	PCC	-	Ordinary watercourse	Padholme Agreement (HCA)	50 - 100 k			3		**Completed**
Hampton investigations	**P**	Orton with Hampton	U	Investigations into foul sewer issues and first phase implementation measures related to resilience of pumping station control panel	AW	-	Foul and surface water sewers	AW	10 - 50 k			3		**Completed**
North Ward flood alleviation works 1	**P**	North Ward	U	Works to improve surface water drainage system on Welland Road, removing inadequate soakaway function	AW and PCC	-	Surface runoff	AW	≤ 10 k			3		**Completed**
North Ward flood alleviation works 2	**P**	North Ward	U	Works to improve surface water drainage system in Welland Close	AW and PCC	-	Surface runoff	AW	≤ 10 k			3		**Completed**

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APPENDIX F: Peterborough Flood Risk Management Strategy (FMS) Action Plan

Caveat: All schemes listed here will still need to gain business case approval before works can take place. See page 69 of the FMS for the full caveat.

KEY TO ACRONYMS

Management area

Fens	Fens (rural north and east)
U	Urban
P-wide	Peterborough wide
RW	Rural west

Organisations/partners

AW	Anglian Water
CCC	Cambridgeshire County Council
EA	Environment Agency
FloW	Flood and Water Management Partnership
IDBs	All Internal Drainage Boards
MLC	Middle Level Commissioners
NCC	Northamptonshire County Council
NLD IDB	North Level District IDB
PCC	Peterborough City Council
Peterborough DNA	Future Cities Demonstrator project (Peterborough DNA)
W&D IDB	Welland and Deeping IDB
WVP	Welland Valley Partnership

Funding source

AW AMP	Anglian Water Asset Management Plan
FDGiA	Flood defence Grant in Aid
WDGiA	Water Framework Directive Grant in Aid

Benefits to

A	Agriculture
B	Businesses
C	Community amenities & public services
D	Supports new development
E	Efficiency of management
H	Homes
I	Infrastructure e.g. highways, power, water
L	Better local knowledge/understanding for use in management, planning schemes and resilience, new development and insurance)
N	Natural environment (biodiversity, water quality etc)

Action Name	Action Ref	Ward	Management area	Action Description	Lead Partner	Other Partners	Time Frame	Funding source	Cost (£)	FMS Objectives 1	2	3	4	Benefits to	Priority	Progress
Maintenance	A1	All	P-wide	Continue current maintenance actions for watercourses, major assets and all other assets as identified in management chapter. Exceptions where new projects result in changes and improvements to operation.	All	N/A	Ongoing	All partners budgets and contractor frameworks	Maintenance frameworks			3		H, B, A, I, C	Very high	**On-target**
Proactive maintenance	A2	All	P-wide	Carry out additional proactive targeted maintenance based on incident and asset registers, forecasts and budgets.	All	N/A	2014 - 2015	All partners budgets and contractor frameworks	Maintenance frameworks			3		H, B, A, I, C	Moderate	**On-target**
Incident recording	A3	All	P-wide	Record flooding incidents occurring or occurred in Peterborough and keep an up-to-date incident database. Investigate incidents meeting PCC thresholds and plan appropriate future actions.	PCC	FloW Partnership	Ongoing	PCC in-house resources	Staff-time	1	2			H, B, A, I	High	**Some obstacles**
Partnership issue resolution	A4	All	P-wide	Resolution of the issues and incidents identified to FloW Partnership (these are the more complex, long lasting issues).	PCC	FloW Partnership	Ongoing	All partner in-house resources. Potential to need funding bids depends on the issue arising.	Unknown		2	3		H, B, A, I	Very high	**In progress**
Padholme Catchment	A5	East	Fens	Desilt Padholme Drain and carry out any necessary works to the pumping station and flood storage reservoir.	EA	PCC, NLDIDB	2015 - 2020	Maintenance funding from Padholme Catchment Agreement	50 - 100 k		2	3		H, B	Moderate	**On-target**
SAMPs	A6	All	P-wide	Review System Asset Management Plans (SAMPs) to determine appropriate levels of maintenance, taking into account the level of risk, funding and asset condition.	EA	-	2015 - 2020	EA in-house resources	≤ 50 k	1				E	Moderate	**New**

Asset register	A7	All	P-wide	Maintain and further develop partner asset register with yearly updates.	PCC	FloW Partnership	2014 - 2015	PCC in-house resources	≤ 50 k	1	2			E, L	High	**In progress**
Data plan	A8	All	P-wide	Prepare and implement data management plan for shared asset data to ensure data sets are kept up-to-date and used correctly.	PCC	FloW Partnership	2014 - 2015	PCC in-house resources	Staff-time		2			E, L	Moderate	**In progress**
PCC asset survey	A9	All	P-wide	Undertake full asset survey of all PCC key assets to inform local knowledge and feed into asset register. Prioritise and implement according to budget and deliverability.	PCC	N/A	2015 - 2020	PCC LLFA budget	≤ 50 k	1				E, L	Moderate	**In progress**
SW sewer surveys	A10	All	P-wide	Obtain additional data on the public surface water sewer network in priority areas to improve partner knowledge and aid scheme design.	AW	PCC	2020 - 2025	AW Business Plans AMP 6/7, PCC LLFA budget, joint funding bids	50 - 100 k	1				E, L	Low	**New**
Private assets	A11	All	P-wide	Gather mapping and condition information about private assets e.g. ordinary watercourses and small reservoirs to determine their risk level. Requires standardised framework for inspection findings.	PCC	Riparian owners	2020 - 2025	PCC LLFA budget / other stakeholder funds on case by case basis	≤ 50 k	1				L	Very low	**New**
Designation	A12	All	P-wide	Designate third party assets (natural or man-made structures or features) deemed to affect flooding. Agree on process, criteria for designation, evidence required, appeal system and protocol for enforcement.	PCC	AW, EA, IDB	2015 - 2020	PCC in-house resources	Staff-time	1				H, B	Low	**New**
Culverts and bridges	A13	Eye & Thorney	Fens	Work together to clarify ownership of culverts and bridges throughout IDB area with the aim of developing an efficient working plan to improve asset data and improve conditions.	PCC and NLDIDB	Other IDBs	2015 - 2020	IDB and PCC in-house resources	Staff-time	1	2	3		A, I	High	**New**
Peakirk pumping station	A14	Newborough	Fens	Investigate issues at Peakirk pumping station and resolve any mechanical issues.	AW	Peakirk Parish Council	2014 - 2015	AW AMP 5 / 6	≤ 50 k	1		3		C	Very high	**In progress**
Fletton and Woodston	A15	Fletton & Woodston	U	Investigation of sewer networks in Fletton High Street to update asset records and identify if improvements can be made to the existing routing of surface water.	AW	PCC	2015 - 2020	AW AMP 5 / 6	50 - 100 k	1		3		H, B	Moderate	**In progress**
Drainage district modeling	A16	Barnack, Eye & Thorney, Glinton & Wittering, Newborough, Northborough, Stanground Central, Stanground East	Fens	IDBs to model their drainage districts to get an updated idea of the standard of protection offered.	NLDIDB, W&D IDB, MLC	-	Ongoing	IDBs	50 - 100 k	1				L	Moderate	**In progress**
Resilient development	D1	All	P-wide	Define PCC approach to resilient development in planning, including clearer policy on exceedance flows and resilient construction in new and redeveloped buildings.	PCC	EA	2014 - 2015	PCC in-house resources	Staff-time				4	D	Moderate	**New**
SFRA	D2	All	P-wide	Review the Strategic Flood Risk Assessment including climate change impacts and critical drainage areas approximately every five years in line with the Local Plan review.	PCC	FloW Partnership	2015 - 2020	PCC strategic planning budget and EA in-house resources	≤ 50 k	1			4	D	High	**New**
SPD	D3	All	P-wide	Review Flood and Water Management Supplementary Planning Document approximately every five years in line with the Local Plan review.	PCC	FloW Partnership	2015 - 2020	PCC in-house resources	Staff-time	1		3	4	D	Moderate	**New**

Development management	D4	All	P-wide	Improved focus on surface water management and sustainable drainage through the Planning (Development Management) process including improved consultation with AW and IDBs.	PCC	FloW Partnership	2014 - 2015	PCC in-house resources	Staff-time	1		3	4	D	High	**In progress**
SAB	D5	All	P-wide	Implement the SuDS Approving Body (SAB) including setting out a clear process for SuDS adoption and maintenance. Promote the aims and requirements for SuDS and the SAB.	PCC	FloW Partnership, Developers	2014 - 2015	PCC in-house resources	Staff-time			3	4	D	High	**On-target**
WCS	D6	All	P-wide	Review the Water Cycle Study approximately every five years in line with the Local Plan review.	PCC	FloW Partnership, Developers	2015 - 2020	PCC strategic planning budget	50 - 100 k				4	D	Moderate	**New**
FloW Partnership	C1	All	P-wide	Communication across the FloW Management Partnership organisations and within PCC - continue 6-monthly external meetings, and regular internal meetings, monitor progress against action plan and objectives, and establish sub groups as required.	PCC	FloW Partnership	Ongoing	All partner in-house resources	Staff-time	1	2			E, L	Very high	**On-target**
Council website	C2	All	P-wide	Ensure water and flood risk information is available on the City Council water website and it is useful and up-to-date. Implement and maintain new SuDS website.	PCC	Communities and developers	Ongoing	PCC in-house resources	Staff-time	1				E, L, C	High	**On-target**
Co-ordinate engagement	C3	All	P-wide	Undertake and co-ordinate appropriate engagement activities to promote greater awareness of flood and water-related management in Peterborough. Involve community groups in the establishment of campaigns.	FloW Partnership	-	Short	PCC in-house resources	Staff-time	1				E	Moderate	**New**
Flood awareness	C4	All	P-wide	Deliver targeted community engagement to encourage people to be flood aware, to sign up to receive flood warnings and to understand what action to take to protect themselves on receipt of a warning. Continue to promote and use the EA's Floodline Warnings Direct service but also investigate other warning and engagemen tools related to surface water flooding or different types of social media. Learn from the outcomes of the Northamptonshire County Council pathfinder project and implement recommendations as appropriate.	EA and PCC	FloW Partnership	2015 - 2020	EA budgets and PCC LLFA budget	≤ 50 k	1				H, B, C, L	Moderate	**New**
Community involvement	C5	All	P-wide	Engagement campaigns encouraging community involvement in managing rivers and the environment. Includes working closely with RiverCare groups in Peterborough and with landowners, as well as generally raising awareness of riparian responsibilities.	FloW Partnership	RiverCare, landowners, communities	2015 - 2020	PCC LLFA budget, AW AMP 6/7, Keep Britain Tidy (RiverCare), EA budgets	≤ 50 k	1		3	4	H, B, N, C, E, L	HIgh	**New**
Keep it Clear 1	C6	Orton with Hampton	U	Keep it Clear: Campaign to encourage communities to help our work by playing their part in protecting the sewer network. This includes not disposing of fats, oils, greases and other non-flushables down the sink or toilets or putting anything into surface water drains in the road.	AW	PCC, Parish Council	2015 - 2020	AW AMP 6 and PCC LLFA budget	≤ 50 k	1		3		H, B, I, E	Very high	**New**
Keep it Clear 2	C7	Barnack, Glinton & Wittering, Newborough, Northborough	Fens	Keep it Clear: Campaign to encourage communities to help our work by playing their part in protecting the sewer network. This includes not disposing of fats, oils, greases and other non-flushables down the sink or toilets or putting anything into surface water drains in the road.	AW	PCC, Parish Councils	2015 - 2020	AW AMP 6 and PCC LLFA budget	≤ 50 k	1		3		H, I	High	**New**

Existing flood wardens	C8	Newborough, Orton Waterville, West	U, Fens	Maintain relationships with existing flood wardens.	PCC	EA	Ongoing	PCC and EA in-house resources	Staff-time	1	2	3		E, L	Very high	**On-target**
New flood wardens	C9	All	P-wide	Actively recruit more volunteers to the Flood Warden Scheme starting in priroity areas. Provide annual training and relationship building event for all flood wardens and interested residents. Ideally would have one warden for each Parish area, subcatchment area or Ward.	PCC and EA	FloW Partnership	2015 - 2020	PCC LLFA budget and EA budgets/ in-house resources	≤ 50 k	1	2	3		E, L	Moderate	**New**
Sustainable water	C10	All	P-wide	Continue campaigns and projects promoting sustainable water to communities including Drop 20 water efficiency campaigns and RiverCare support (flood risk benefits come from general improvement in people's understanding of water management and their actions).	AW	EA, PECT, Keep Britain Tidy, PCC	2015 - 2020	AW AMP 6 , EA budgets	≤ 50 k	1			4	H, B, N, L	High	**Progress**
Permeable driveways	C11	All	P-wide	Set up a campaign to discourage the paving over of drives and gardens with impermeable surfaces and raise awareness about the problems of urban creep.	PCC	AW	2015 - 2020	PCC LLFA budget	≤ 50 k	1		3	4	H, I	Moderate	**New**
Developer engagement	C12	All	P-wide	Continue and increase engagement with developers regarding surface water management through forums, website, pre-application advice and promotion of Supplementary Planning Document.	PCC	FloW Partnership	2014 - 2015	PCC in-house resources	Staff-time	1			4	D	Very high	**In progress**
Flood warnings	C13	All	P-wide	Flood forecasting/warning service: Maintain current services, undertaking reviews of community based flood warning areas after improvements to forecast models or post-incident performance analysis. This service is underpinned by maintenance of flow gauging station and rain gauges throughout the catchment. Links to be made to PCC and NCC's rain gauge projects.	EA	NCC, PCC	Ongoing	EA budgets	≤ 50 k					H, B	Very high	**In progress**
Utilities and infrastructure	C14	All	P-wide	Continued engagement with energy and water companies and other service providers about ensuring the resilience of infrastructure in Peterborough. Joint projects will be considered where appropriate.	PCC	EA, AW, UK Power Networks, Network Rail	Ongoing	PCC in-house resources. Potentially CIL if joint projects are identified.	Staff-time	1	2	3	4	I	Medium	**In progress**
MAFP	P1	All	P-wide	Update Cambridge and Peterborough Multi-Agency Flood Plan using new flood maps, incident database and SFRA mapping to identify priority areas.	PCC	LRF	2014 - 2015	PCC in-house resources	Staff-time	1	2			H, B, I, E, L	Very high	**New**
Severe weather system	P2	All	P-wide	Consider the use of a severe weather recording system to enable the LRF to be able to assess impacts on resources and budgets of extreme weather events.	PCC	LRF	2015 - 2020	PCC in-house resources / environment budget	≤ 50 k	1				E, L	High	**New**
Understanding the risk - Ortons	P3	Orton Waterville, Orton Longueville	U	Complete flood risk assessment from all sources, communicate to community and work with community to understand future options for resilience.	EA	PCC	2014 - 2015	EA budgets and PCC LLFA budget	≤ 50 k	1		3		H, B	Very high	**Some obstacles**
Welland flood banks refurbishment	P4	Newborough, Glinton & Wittering, Northborough	Fens	Re-review Welland Cradge Bank Performance Review project using outputs from updated River Welland model. Include review of the operation of the Crowland and Cowbit Washes. Implement recommendations from review sustaining the standard of service provided. Opportunities to improve river corridor habitats and improve the ecological resilience of the Maxey Cut to extreme high and low flows will be included as part of this project.	EA	PCC, Lincolnshire County Council, W&D IDB, Communities, WVP, Welland Rivers Trust	2015 - 2020	FDGiA, WFDGiA, several other sources to be sought including CIL	5 m - 10 m			3	4	H, B, I, E, N, C, D	High	**New**

Middle Nene WFD and flood risk management project	P5	Outside Peterborough	RW	Develop project and secure funding to implement WFD measures that reduce flood risk to communities. Includes investigating use of gravel pits and reinstated wetlands to attenuate and store water; use of sustainable drainage systems to mitigate flow and pollution issues; modelling and mapping to quantify flood risk benefits; and investigating measures to mitigate the impacts of climate change.	EA	NCC, Natural England, CCC, PCC, landowners and community	2015 - 2020	FDGiA, several other sources to be sought including CIL.	> 10 m			3	4	H, B, I, N, C, D	High	**New**
Understanding the risk - West ward	P6	West	U	Continue to work with the community and Flood Wardens to develop understanding of the local river response based on river levels and local knowledge. Develop appropriate actions to manage the risks.	EA and PCC	Flood Wardens, community, Flow Partnership	2014 - 2015	PCC and EA in-house resources. Other sources of funding will be sought as appropriate.	≤ 50 k	1		3		H	High	**In progress**
Understanding the risk - Fletton & Woodston	P7	Fletton & Woodston	U	Work with the community to better understand flood risk in this ward, including the impact of combined sewers, and develop appropriate actions to manage the risk. Assess the modelling required to determine actual allowable discharge rates for sites discharging to Fletton Spring.	EA and PCC	Community, Flow Partnership	2015 - 2020	PCC and EA in-house resources. Other sources of funding will be sought as appropriate.	≤ 50 k	1		3		H, B	Moderate	**New**
Werrington Brook improvements	P8	Werrington North, Werrington South, Walton, North Bretton	U	Appraise options and develop detailed designs for water quality, habitat and flood risk improvements. Seek additional funding. Deliver community and business engagement schemes. Deliver in-channel improvements at various points along Marholm Brook and Werrington Brook.	EA and PCC	Werrington Neighbourhood Council, Welland Valley Partnership, Flow Partnership, Network Rail, local businesses and landowners	2015 - 2020	PCC LLFA budget, WFDGiA, FDGiA, WVP, AW AMP 6, CIL, other funding sources being sought such as community grants and business funding.	100 - 500 k			3	4	H, B, N, C, D	Very high	**On-target**
Brook Drain flood alleviation scheme	P9	North Bretton	U	Comprehensive review of system. Develop and secure funding for a flood alleviation and WFD improvements scheme linked to Network Rail's proposed works to Werrington Junction. Investigate the need for and improvements to be gained from changing the operation of the Werrington penstock at the confluence with Marholm Brook and Brook Drain. Investigate options for control of diffuse pollution.	EA	PCC	2015 - 2020	FDGiA, Network Rail, CIL, PCC LLFA budget, WFDGiA	500 k - 1 m			3	4	B, I, D, N	High	**New**
Paston Brook flood alleviation scheme	P10	North Ward	U	Comprehensive review of flood risk, investigating appropriate solution to manage the risk, which may include improving the A47 culverts on Paston Brook.	EA	PCC, AW	2015 - 2020	FDGiA, PCC LLFA budget, AW AMP 6	1 m - 5 m			3		H, I, N	Moderate	**New**
Understanding the risk - Stanground Central	P11	Stanground Central	U	Work with the community to better understand flood risk in this ward and develop appropriate actions to manage the risk. Includes consideration of flow monitoring on the Lode, modelling to determine the actual allowable discharge rates for sites discharging to Stanground Lode, and removal of surface water from combined sewers.	FloW Partnership	Community	2015 - 2020	EA and PCC in-house resources. Other sources of funding will be sought as appropriate.	≤ 50 k	1		3		H, B, E	Moderate	**New**

Understanding the risk - Rivergate	P12	Central	U	Work with local businesses and partners to better understand the risk around Rivergate. Undertake additional mapping of sewers if needed. Determine whether further works are required. Link works in with highway improvements.	FloW Partnership	Local businesses	2020 - 2025	AW AMP 7 business plan, PCC LLFA budget, local businesses	≤ 50 k			3		B	Low	**New**
River Nene structure automation	P13	East, Fletton & Woodston, Glinton & Wittering, Orton Longueville, Orton Waterville, Stanground Central, West	P-wide	Review existing operational regime of river (flow) control structures along the main River Nene. Undertake automation of structures, where finacially cost beneficial and feasible, to improve the speed of river regulation and minimise active intervention on site where possible.	EA	-	2015 - 2020	EA budgets	1 m - 5 m		2			E, I	Moderate	**New**
Peterborough adaptation plan	P14	All	P-wide	Develop a partnership adaptation plan for Peterborough to enable the City to be more resilient to changes in severe weather, climate, resource availbility etc.	PCC	FloW Partnership, Environment Capital Steering Group	2015 - 2020	PCC environment budget and other sources of funding will also be sought.	≤ 50 k	1	2	3	4	H, B, A, I, N, C, E, L, D	Moderate	**New**
Rain gauges	P15	Barnack, Bretton North, Central, Dogsthorpe, East, Eye & Thorney, Fletton & Woodston, Glinton & Wittering, North, Northborough, Newborough, Orton with Hampton, Orton Longueville, Orton Waterville, Paston, Stanground Central, Werrington North, West	P-wide	Install rain gauge(s) in Peterborough to provide data for warnings and response, incident reporting and long-term records for use by schools and PCC.	Peterborough DNA	Local schools	2014 - 2015	Peterborough DNA, PCC LLFA funding	≤ 50 k	1	2			E, L	Moderate	**New**
Paston Ward flood alleviation scheme	P16	Paston Ward	U	Work in partnership with the community to better understand the risk in this area and to develop options for reducing surface water flood risk. Consider retrofit of sustainable drainage systems and an outlet in the embankment. Implement preferred option.	PCC	AW, community	2015 - 2020	PCC, AW AMP 7 business plan	50 - 100 k			3		H	High	**New**
Stewards House Drain	P17	Eye & Thorney	Fens	Undertake capacity improvement works to Stewards House Drain	NLDIDB	PCC, local school, Parish Council	2014 - 2015	FDGIA, NLD IDB budget, PCC LLFA budget, local beneficiaries	≤ 50 k			3		H, B, C	High	**On-target**
Counter Drain flood resilience scheme	P18	East	Fens	Make the channel more resilient to pump failure and failure of the banks. Reduce the frequency of flooding.	Flow Partnership	Landowners	2015 - 2020	All riparian owners	100 - 500 k		2	3	4	A, I, N	High	**Some obstacles**

Wansford flood alleviation scheme	P19	Outside Peterborough, Glinton & Wittering	RW	Work with professional partners and community to develop and secure funding for a flood alleviation scheme. Involves a comprehensive review of flood risk and existing managment assets and investigation of appropriate solutions to sustain the standard of service that they provide.	EA	CCC, NCC, Community, PCC	2014 - 2015	FDGiA, other funding to be sought	500 k - 1 m			3		H, B	High	**On-target**
Whittlesey Washes (Nene Washes) works	P20	Outside Peterborough	Fens	Improvement to banks of the Washes to reduce the changes of breach. Essential works under the Reservoirs Act, arising from the Whittlesey Washes Probable Maximum Flow study and the section 10 Inspection Report. Includes work to Stanground green wheel cycle route.	EA	NLD IDB, PCC, CCC	2014 - 2015	FDGiA, local levy, NLD IDB, local beneficiaries	> 10 m			3		H, B, A, I, D	Very high	**In progress**
City centre combined sewers	P21	Central, West	U	Upon redevelopment of sites or significant highway improvements consider partnership projects in the surrounding areas to remove surface water completely from the combined sewers.	PCC	AW, developers	2015 - 2020	CIL, new PCC capital budget, developers, AW AMP 6 and 7	100 - 500 k			3	4	H, B, I, E	High	**New**
Understanding Ravensthorpe	P22	Ravensthorpe	U	Exercise to understand why Ravensthorpe scores highly in the climate change susceptibility work and plan for this accordingly with future actions.	PCC	FloW Partrnership	2015-2020	PCC in-house resources	Staff-time			3	4	H, L	Moderate	**New**
City Council - sustainable water	P23	All	P-wide	Undertake a variety of measures to help deliver the Environment Capital Action Plan, by ensuring best use of natural resources and promoting protection of water environments (e.g reducing water consumption and minimising pollution).	PCC	-	2015 - 2020	PCC strategic resources, framework contractors or environment budget	Staff-time				4	E, N	High	**In progress**

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SUSTAINABLE GROWTH AND ENVIRONMENT CAPITAL SCRUTINY COMMITTEE	Agenda Item No. 6
4 SEPTEMBER 2014	Public Report

Report of the Executive Director of Resources

Contact Officer(s) – Charlotte Palmer. Environment Strategy and Future City Manager
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GREEN LEASES – DISCUSSION PAPER

1. PURPOSE

1.1 This report follows a recommendation made by the Sustainable Growth and Environment Capital Scrutiny Committee to investigate green leasing with a view to the council adopting it as a policy.

2. RECOMMENDATIONS

2.1 The Committee is asked to note the report and the intended actions.

3. LINKS TO THE SUSTAINABLE COMMUNITY STRATEGY

3.1 This report directly contributes to the objectives and outcomes contained in the Sustainable Community Strategy and, in particular, the aspiration to 'create the UK's Environment Capital'.

4. BACKGROUND

4.1 **What is a green lease?**

There is currently no agreed legal definition of a green lease. However, the intention of such a lease arrangement is to improve the sustainability of a rental building by providing a system for engagement between owners and occupiers in relation to environmental management and performance.

Essentially a green lease contains additional provisions whereby the landlord and tenant undertake specific responsibilities/obligators with regards to the environmental operation of a property. At the most basic level a green lease seeks to remove restrictions contained within a standard lease that prevent energy efficiency works taking place. More demanding green leases set specific legally binding obligations and targets to improve the environmental performance of a building that can incur penalties if not delivered. Such targets may relate to a wide range of measures including energy efficiency, waste reduction/management, water efficiency, supply chains and social and ethical considerations.

The 'green lease' was first developed in Australia where its use became mandatory in all Government owned and occupied buildings. Then it was expanded to the private sector around the world as a voluntary initiative.

4.2 **Why should we consider green leases?**

Legislation – It is likely that green leases will become more commonly adopted as legislation to deal with legally binding carbon reduction targets in the Climate Change Act 2008 and the need to adapt buildings to a changing climate become more apparent. Aspects of the Climate Change Act are beginning to force businesses to re-evaluate the way they operate properties that they either own or occupy. For example the Carbon Reduction Commitment Scheme (CRC) requires participants to report their energy consumption and pay for the associated

carbon emissions which directly puts a price tag on a buildings environmental performance.

From September 2013 the London Stock Exchange Main Market Listed Companies (c.1,400), which includes both UK and foreign companies, must report their global greenhouse gas emissions within their annual financial report. In addition, green leases help to ensure compliance with the increasingly tighter energy efficiency targets contained within Building Regulations.

Monetary benefits and reduction in obsolescence risk. Green leases should provide bottom line business benefits for both the landlord and tenant. However, market take up has been relatively low without legislative drivers. However, this is likely to change because, whilst the exact details are yet to be decided, it is anticipated from the Energy Act 2011's 'Minimum Energy Performance Standards for lettings' that buildings with an Energy Performance Certificate rated below a minimum (potentially E) will no longer be leasable after April 2018. The most current data suggests that approximately a fifth of the UK's commercial buildings will become unlettable and obsolete unless owners take active steps to improve their energy efficiency.

In line with the city's aspiration to create the UK's Environment Capital. Whilst the council is unlikely to prohibit tenants from undertaking works to their buildings that would improve overall energy efficiency entering into a green lease shows wider public support in line with this aspiration.

4.3 **What are the benefits of green leases?**

There is currently no obligation for green leases to be utilised by landlords and tenants and at present it is a matter for market practise and negotiation between owners and occupiers. Yet, there are a number of benefits for both parties.

Benefits for occupiers

1. Reduce operating costs.
2. Improve staff productivity and retention.
3. Meeting legislative reporting requirements including the CRC.
4. Metering to track performance to ensure most efficient use of the building.
5. Higher quality operating environment.

Benefits to owners

1. The potential to see an increased occupier demand.
2. Limit regulatory exposure.
3. Retaining asset value.
4. Attract investors.
5. Data sharing to monitor performance and ensure good practice on building use.

4.4 **What are the barriers to green leases?**

There are a number of barriers that are currently limiting the uptake of green leases. These include:

- Traditional adversarial landlord and tenant relationships.
- The question of who will incur costs of energy efficiency works? Owners are often unwilling to invest in improving the energy, water and waste efficiency of a building, as in many cases, the financial benefits will be reaped by the tenant through lower energy, water and waste bills. The tenant also often has little incentive to incur expenditure on a leased building or agree contributions to improvements by the landlord.
- A lack of evidence that the rental levels or capital value will increase.
- Constantly evolving and changing legislations, for example the Carbon Reduction Commitment Energy Efficiency Scheme, has raised concerns about the need to maintain as much flexibility as possible in leases.
- If buildings are already let, the landlord can only carry out alterations under the terms of the lease. In most cases the owner/ landlord does not have the ability to recover the

cost of these improvements through the service charge.

4.5 **What are the options for Peterborough City Council?**

Whilst it is possible for the city council to revise lease agreements with existing tenants this is likely to prove to be a long and cumbersome tasks, running the risk that tenants will refuse to sign a new agreement which may result in a decreased rental income for the organisation. With this in mind the Executive Director of Resources intends to undertake the following steps:

Firstly, develop and issue a memorandum of understanding to all existing tenants (and new tenants as they enter into leases). This would effectively act as a basic green lease. This document will make it explicitly clear that the council would not prohibit any works that would improve the energy performance of a building. The document will also offer guidance detailing how people may go about improving the efficiency of their building. For example, detailing how a tenant may access Peterborough's Energy Performance Contract with Honeywell.

Secondly, identify which of the council's assets have a low energy efficiency rating and are likely to be rented out now or at some point in the future. This will allow an assessment to be undertaken of a potential loss of income if these properties become un-rentable in the future due to changing legislation. After this analysis green leases could be negotiated on a case by case basis with individual tenants with a view to improving the overall energy efficiency rating of the building.

5. KEY ISSUES

5.1 There are no immediate issues relating to the proposed actions. However it is worth noting that the immediate impact this will have on the overall efficiency of the council's rental estate is likely to be minimal. Nevertheless this is a step in the right direction.

6. IMPLICATIONS

6.1 None

7. CONSULTATION

7.1 This document has been produced in collaboration with colleagues from finance, strategic property and legal. No formal consultation is required with existing tenants prior to the issue of a memorandum of understanding.

8. NEXT STEPS

8.1 Feedback will be shared with the relevant council departments prior to any work being undertaken. It is intended that the memorandum of understanding will be issued by the end of November 2014 and the work to identify low energy efficiency rated buildings will commence following this.

9. BACKGROUND DOCUMENTS

Used to prepare this report, in accordance with the Local Government (Access to Information) Act 1985

9.1 None

10. APPENDICES

10.1 None

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SUSTAINBLE GROWTH AND ENVIRONMENT CAPITAL SCRUTINY COMMITTEE	Agenda Item No. 7
4 SEPTEMBER 2014	Public Report

Report of the Head of Economic Development

Contact Officer(s) – Steve Bowyer, Opportunity Peterborough
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INITIAL DRAFT PETERBOROUGH ECONOMIC ACTION PLAN

1. PURPOSE

1.1 This report is being presented in order to outline the proposed direction of travel for the development of the Peterborough Economic Action Plan, to be coordinated by Opportunity Peterborough but adopting a multi-agency approach.

1.2 It is intended as a statement around which the city can focus its economic activity.

1.3 It is not intended as a formally adopted policy document of the Council.

2. RECOMMENDATIONS

2.1 It is recommended that the Committee discuss this report and provide comments.

2.2 Should it meet with the Committees approval then it is recommended that the Committee endorses this report so that discussions with other key stakeholders regarding its content may begin and a full Economic Action Plan can be developed.

3. LINKS TO THE SUSTAINABLE COMMUNITY STRATEGY

‘

3.1 This report supports Priority 1 of the Sustainable Community Strategy, ‘Creating opportunities – tackling inequalities’, by encouraging businesses and other organisations to recognise and realise the economic benefits of investing in a supportive community. It particularly contributes to the ‘Improving skills and education’ outcome by encouraging greater interaction between employers and providers.

3.2 It supports Priority 2 of the Sustainable Community Strategy, ‘Creating strong and supportive communities’, by creating greater economic opportunity for the city’s communities. It particularly contributes to the ‘Building pride in Peterborough’ outcome by providing a single framework through which stakeholders from all sectors can formulate and articulate their contributions to the future development of Peterborough.

3.3 It supports Priority 3 of the Sustainable Community Strategy, ‘Creating the UK’s environment capital’, by encouraging businesses and other organisations to recognise and realise the economic benefits available through the adoption of environmentally friendly business practices.

3.4 It supports Priority 4 of the Sustainable Community Strategy, ‘Delivering substantial and truly sustainable growth’, by increasing economic opportunity and prosperity for Peterborough’s residents through support for local businesses and the attraction of new businesses as well as by encouraging businesses and other organisations to recognise and realise the economic benefits of investing in a vibrant city centre and sustainable community centres.

3.5 Whilst this report does not directly contribute towards the Safer Peterborough Partnership Plan

it does embody the principles of the Single Delivery Plan.

- It highlights the importance of a multi-agency approach, focused on outcomes, not organisations
- It addresses 'root causes' by encouraging action on the three fundamental pillars of sustainable growth – economy, environment and society – all of which are essential for successful economic growth.
- It seeks to be innovative and 'do things differently for less' by encouraging all stakeholders to take responsibility for sustainable economic growth, not just out of civic duty but because it delivers direct economic and financial benefits.
- Prioritisation – it has clear economic objectives which are brought into sharper relief through the establishment of a unifying framework.
- Big Society – it embodies the big society agenda by providing a framework for joint delivery, highlighting how all can benefit if all contribute.

4. BACKGROUND

4.1 Opportunity Peterborough is the City's economic development company and as such is responsible for the creation and delivery of the City's Economic Action Plan.

5. KEY ISSUES

5.1 In light of continued budget restraints Peterborough needs to identify an innovative way of achieving sustainable economic growth.

5.2 A multi-agency approach, coordinated by Opportunity Peterborough, which encourages all stakeholders to play their part in meeting the city's needs whilst being able to realise economic and financial benefit, where appropriate, provides a win-win solution.

5.3 Whilst this approach has been adopted in Peterborough and elsewhere regarding specific initiatives, such as Peterborough's Skills Pledge, participation has often been based on gestures of goodwill rather than on the articulation of a sound business case. In addition no examples have been found that encompass all three aspects of sustainability or underpin the unifying framework for sustainable economic growth. As such Peterborough has the opportunity to establish itself as the pioneer of a model which events may dictate becomes commonplace.

6. IMPLICATIONS

6.1 There are no direct implications related to this report. However, should this Committee choose to endorse this report then it would follow that Peterborough City Council should lead by example and sign its own Peterborough Pledge at some point in the future. Given the range of existing commitments, such as the Environment Capital Action Plan, it is envisaged that this would entail no further implications for the Council but would provide a framework under which it would be able to articulate and unify a number of its existing commitments.

7. CONSULTATION

7.1 NA

8. NEXT STEPS

8.1 Should the report be endorsed by the Committee then additional key stakeholders will be engaged in order to secure their support and endorsement. Engagement with a broader stakeholder group would then commence in order to produce a full Economic Action Plan and to commence the Peterborough Pledge programme.

8.2 Should the Committee not endorse the report then their comments would be taken on board and appropriate action taken.

9. BACKGROUND DOCUMENTS

Used to prepare this report, in accordance with the Local Government (Access to Information) Act 1985

9.1 Peterborough City Council Sustainable Community Strategy Summary 2008-2021 (https://www.peterborough.gov.uk/pdf/SustainableCommunityStrategySummary.pdf)

Peterborough City Council Safer Peterborough Partnership Plan – Single Delivery Plan Principles (http://www.peterborough.gov.uk/safer_peterborough/operation_can-do/single_delivery_plan_principle.aspx)

Peterborough Local Economic Assessment 2011 (http://www.peterborough.gov.uk/pdf/Peterborough-Local-Economic-Assessment-April-2011.pdf)

Sustainable Urban Enterprise (www.forumforthefuture.org)

Economic Snapshot of Peterborough October 2013 (http://opportunitypeterborough.co.uk/download/economic-snapshot-of-peterborough-october-2013/)

Creating the UK's Environment Capital: Action Plan (http://www.peterborough.gov.uk/pdf/Environment-EnvCap-EnvCapActionPlan.pdf)

Peterborough Integrated Growth Study 2008

10. APPENDICES

10.1 Initial Draft Peterborough Economic Action Plan

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Peterborough Economic Action Plan – *Initial Draft [text only]*

This document constitutes the first pass at creating an economic action plan for the city of Peterborough and its surrounding population. Its purpose is to provide a template for achieving sustainable economic growth and increasing the economic prosperity of the inhabitants of Peterborough. It is intended that, in its final form, it should sit alongside such documents as the Economic Snapshot of Peterborough, the Environment Capital Action Plan and the Strategic Growth Plan in a complimentary manner rather than seek to duplicate or replace them.

PETERBOROUGH – THE UK'S MOST DYNAMIC CITY

Peterborough is the UK's most dynamic city:

- The fastest growing city by population
- The fastest digital network
- The second fastest private sector jobs growth
- Predicted by McKinsey to have the fastest growing economy from 2010 to 2025

This is fantastic news for businesses and the population alike and will result in increased economic prosperity and increased standards of living for many people. However, with such growth comes pressures, pressures on the environment, on resources, on infrastructure, on services and on society. In order to ensure that Peterborough fulfils its potential and delivers benefits for all it is imperative that all stakeholders play their part in creating the right environment for success.

The purpose of this Economic Action Plan is to outline the key areas of focus for economic development activity considered vital in enabling Peterborough to maximise its potential and realise its vision. It is intended to act as a catalyst to promote coordinated, collaborative partnership working and to inspire stakeholders to take ownership of the issues relevant to them.

STRENGTHS AND CHALLENGES

Peterborough is well placed logistically and geographically being just 45 minutes from Kings Cross whilst also having great access to the Midlands, the North and the East Coast ports and is also within 75 minutes of 5 international airports. It is home to numerous influential companies such as Thomas Cook, Diligenta, Perkins Engines, BGL and Royal Haskoning who benefit from the city's diverse and experienced workforce. Investment in improvements to the city's already robust infrastructure can be seen on the Parkway and Bourges Boulevard as well as in the PeterboroughCore, the Skills Centre and the Energy from Waste plant. This can-do attitude, inherent in the city, has been recognised by the awarding of Environment City and Future City status and is embodied in the Environment Capital ambitions. Sector strengths include – Eco; Digital and Creative; Advanced Engineering and Manufacturing (AEM); AgriTech, Food and Drink; and Business, Professional and Financial Services (BPFS).

There is no doubt that Peterborough is a city on the up! However despite positive trends there are still challenges to overcome. These include above average claimant counts, low levels of business start-ups and survival rates, low aspirations amongst young people resulting in below average skills and educational attainment levels resulting in low wage levels. This action plan is intended to address these challenges, support Peterborough in maximising its potential and improving the life chances of its residents.

VISION

To be recognised as a visionary, international centre for growth, innovation and sustainability – economic, social and environmental.

OBJECTIVES

- Increase productivity across Peterborough's business base
- Increase the number of start-ups
- Improve the survival rate of start-ups
- Increase the number of patents registered in the city
- Increase the number of companies establishing a presence in Peterborough
- Increase the number of apprenticeships being undertaken in the city
- Increase the % of the population qualified to NVQ4
- Increase the average income of the population
- Reduce the cities claimant count
- Reduce youth unemployment

MEETING THE CHALLENGES

Supporting Businesses

Through the 2014 Peterborough Business Survey businesses have asked that we support them by reducing bureaucracy and improving access to finance.

Business support

- With key partners such as the LEP, identify and maximise the strength of key sectors.
- Establish a Supply Chains Development Strategy in order to support local supply chain companies, promote supply chain opportunities and address supply chain gaps.
- Establish a mentoring service for new enterprises.
- Provide export support to increase the number of Peterborough companies exporting goods and services.
- Ensure that all public sector organisations optimise their purchasing processes to enable more local businesses and SMEs to win contracts.
- Ensure that planning policy and processes are as responsive to the needs of business as possible.

Finance

- Establish a vehicle to improve access to finance for businesses via grants, loans or equity agreements for projects that deliver positive social and/or environmental outcomes.
- Improve access to VCs and Angels.
- Support businesses to take advantage of national and international funding sources.
- Expand the Brainwave portal to enable crowdfunding of solutions.
- Provide a platform for partners to collaborate on funding bids.

Cluster development

- Support the development of three key sectors – Eco, AEM and Digital and Creative – into successful, innovative clusters. Required activity will include:
    - establishing a funding model to support core cluster activity
    - establish cluster boards to provide legitimacy and accountability

- brokering relationships
- supply chain development
- gathering and analysis of market intelligence
- providing incubator services
- training brokerage
- marketing of the clusters for inward investment and talent attraction
- coordinating funding bids and lobbying policy makers

Creating an enabling environment

A key role for the public sector is ensuring that a supportive environment exists to allow businesses to flourish. Through the 2014 Peterborough Business Survey businesses identified skills, infrastructure and quality of life as areas where improvements would have a positive impact on their success.

Skills

- Establish a training brokerage service to provide SMEs access to high quality training via group purchasing.
- Encourage more employers to commit to training and up-skilling their workforce, incentivising where possible/necessary, monitoring outputs and reporting on outcomes to further uptake across the employer community.
- Establish a benchmark for major public sector employers in order to increase and promote the provision of Apprentice opportunities.
- Increase engagement between employers and schools in order to raise the aspirations and ambitions of our future workforce and improve input into the design of curricula, particularly regarding STEM, digital and sustainability related subject.
- Work with FE and HE providers to increase the range of courses available to students and employers, particularly regarding, STEM, digital and sustainability related subjects e.g. ARU to deliver BSc Computer Gaming Technology, BSc Computer Science, BEng Electronic Engineering, BEng Mechanical Engineering, BA Computer Games Art, BA Illustration and Animation etc.

Infrastructure

- Ensure the provision of sufficient employment land for existing companies to grow, and new companies to set up in the city, along with the early provision of strategic infrastructure to support those sites. Collaborative bidding across partners to attract funding to deliver this infrastructure will be vital to securing its implementation.
- Continuation of efforts to establish Peterborough as an exemplar digital city, building on the Gigabit Fibre Network through the expansion of the wireless network, improvement of mobile coverage, integration of innovative solutions into city management and pursuit of showcase projects through competition funding.
- Adoption of smart transport technologies and the promotion of Peterborough as a test bed for innovative solutions and technologies e.g. solar roadways (http://www.solarroadways.com/intro.shtml) .
- Ensure that opportunities for innovative solutions for low carbon, low cost power are maximised through integration with local partners such as Blue Sky Peterborough and other agents, and national and international academic centres of excellence.
- Work with businesses to identify opportunities for the development of shared facilities that enable cost and efficiency savings.
- Ensure adequate provision of high quality business space to support the development of key sectors and clusters, from innovation and incubation space to follow-on space and development land, e.g establish a Digital Academy/Hub for start-ups and micro-businesses, to engage with students and to act as a centre for cluster development activity.

Quality of life

- Increase private sector support for the arts in order to support a creative and vibrant cultural scene.
- Improve support for independent retailers and restaurants to support a thriving and diverse town centre.

Leveraging Success

We need to make sure that not only the businesses and residents of Peterborough know about all the great things happening in Peterborough, but letting the rest of the world know will:

- help to attract exciting new businesses, creating new jobs and further boosting our economy;
- attract new talent and highly skilled workers to live and work in the city;
- raise our profile with the LEP, central government and the EU, enabling us to make the case for further investment in our great city.

We need to continue the good work already started but develop this even more. For example, Peterborough is well-placed in the Smart City agenda, and we need to ensure that we make the most of that through all of the actions listed below.

Inward investment

- Develop robust, sector-based business-led propositions that define competitive advantage through sub-sector strengths. (Eco, Advanced Engineering and Manufacturing,
- Create a soft landing package for new investors.
- Maximise the use of business, cultural and academic links.
- Establish and enhance relations with neighbouring authorities and LEPs, as well as those with similar sectoral strengths and ambitions where appropriate, in order to present the strongest offer to potential investors.
- Establish and support a Peterborough Ambassadors network.
- Attend nationally and internationally significant promotional events and conferences e.g. MIPIM.

Talent attraction

- Create and execute campaigns with high profile businesses to encourage highly skilled residents to work for Peterborough organisations rather than out-commuting.
- Create and execute campaigns with high profile businesses to attract highly skilled graduates and workers to commute to, or move to, Peterborough.

Profile raising

- Promote Peterborough as a test bed location for new energy, transport and communication technologies and showcase projects via competition bids and pro-active engagement with the private sector and academic institutions.
- Promote Peterborough as a destination for nationally and internationally significant cultural and business events.
- Identify and bid for nationally and internationally significant sustainability awards.
- Promote Peterborough ambitions, projects and potential to the GCGP Enterprise Partnership and Government departments in order to secure greater investment into the City.

COLLABORATING FOR SUCCESS

This Economic Action Plan sets out what needs to be done in order to realise the city's vision. Some of the actions can be delivered through collective action and can be developed and adopted by a

variety of organisations as part of their Pledge. Other actions will be the specific responsibility of certain organisations and they will need to take ownership of development and delivery.

As the City's Economic Development Company, it will be the responsibility of Opportunity Peterborough to coordinate and monitor activity highlighted in this Action Plan. However, it will be the responsibility of all concerned stakeholders to take ownership of, and legitimise this Action Plan. They will need to work with Opportunity Peterborough in order to develop this document into a series of tangible projects and work streams, in some instances taking responsibility for delivery. This is what is meant by sustainability. Each stakeholder has a responsibility to the communities of Peterborough but all will benefit from its implementation.

Realising this vision will be no mean feat. It is therefore proposed that a 'Peterborough Pledge' *(working title)* is created and committed to by stakeholders from across the public, private and third sectors to support the delivery of this plan and the realisation of the City's vision. The activities of each stakeholder will differ depending on the nature of their operations, but their statement of intent will be based on a universal framework focusing on economic, environmental, and societal sustainability. In doing so each stakeholder will not only contribute to the creation of a vibrant, healthy and highly successful city but they will also gain directly by realising a range of benefits: eg efficiency savings; ensuring that their workforce enables them to compete internationally; making this city the sort of place that attracts and retains the best talent.

A suggested framework for the programme would be:

We, the Corporate Citizens of Peterborough, recognise that investing in environmentally friendly practices, committing to the development of our existing and future workforces and contributing to the social and cultural fabric of this city will deliver business benefits through increased efficiency, productivity and competitiveness. As such we undertake to identify and take advantage of opportunities to:

- *Reduce our environmental impact*
- *Support skills development in the city*
- *Support the cultural, charitable and voluntary organisations that benefit the city*

By identifying specific actions that will contribute towards these commitments whilst delivering specific business benefits to their own operations, organisations will be able to work with Opportunity Peterborough to identify partners, schemes and funding to enable them to deliver their goals.
Some organisations will be able to integrate this into their existing corporate social responsibility strategies, For others it will provide the framework to implement something that is becoming an increasingly important part of an organisations overall strategy, something that not only delivers the benefits already outlined but also provides them with the ability to compete in an environment where ethical decisions not only drive consumer choice but also impact the supply chain decisions of existing and potential clients.

Such a scheme would help to instil a sense of collective responsibility to secure the future of the city through its economic growth, reduced environmental impacts and social enhancements. In supporting this statement, its 'signatories' would undertake to commit to the following:

- Support the aims of the city Economic Action Plan and work collaboratively to maximise the opportunities of the city and support economic growth.

- Act as ambassadors for the city: engendering a positive perception of Peterborough locally, nationally and internationally.

- Have an awareness of environmental impacts and how reducing those will benefit not only their own organisation but the city as a whole.

- Support, practically, vocally or in kind, social, cultural and community initiatives in the city.

No single challenge in the city can be tackled in isolation. The benefits from economic growth support, and are supported by, our approaches to environmental resilience and sustainability, and how we seek to develop our communities. By supporting this Plan, we are registering our commitment to drive the city's economy and drive our success in all of these areas.

SUSTAINABLE GROWTH AND ENVIRONMENT CAPITAL SCRUTINY COMMITTEE	Agenda Item No 8
4 SEPTEMBER 2014	Public Report

Report from PCC's Head of Strategic Commissioning and Amey's Partnership Director

Authors: Ricky Fuller, Head of Strategic Commissioning and Transformation, PCC and Martin Raper, Account Director, Amey

Contact details: Ricky.Fuller@Peterborough.gov.uk **(07811 759679)**
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AMEY ANNUAL PARTNERSHIP REPORT

1. PURPOSE

1.1 This is an opportunity for the Committee to hear from and question both officers of the Council and the Amey Account Director for Peterborough, Martin Raper, on the performance of Amey during 2013/14.

2. RECOMMENDATION

2.1 The Sustainable Growth and Environment Capital Scrutiny Committee are asked to review and comment on this report.

3. LINKS TO THE SUSTAINABLE COMMUNITY STRATEGY

3.1 The Amey partnership contributes to all the priorities in the Sustainable Community Strategy:

Creating opportunities – tacking inequalities;
Creating strong and supportive communities;
Creating the UK's environmental capital; and
Delivering substantial and truly sustainable growth.

4. BACKGROUND AND CONTEXT

4.1 Amey (Enterprise Peterborough) reported to the Committee in September 2013. Since that time work has continued to review the Key Performance Indicators governing the contract (see section 5.2) as well as to improve further the day-in, day-out service delivery.

4.2 The Committee will also wish to note specific updates in respect of: Amey's role in relation to member contacts (section 5.3) and the evolution of the service from the original procurement (section 5.4) as well as wider updates covering the Amey

Acquisition of Enterprise (section 5.5), Performance (section 5.6), the Green Open Spaces Implementation Plan (section 5.7), Corporate Responsibility (section 5.8) and Health and Safety (section 5.9) and the Forward Look for the Partnership (5.10)

5.

KEY MATTERS FOR THE COMMITTEE

5.1

This report updates the Committee on specific issues requested following the previous committee and provides an update on service delivery.

5.2

KPI Review

5.2.1

Members of the Sustainable Growth and Environment Capital Scrutiny Committee have been supportive of the need to rationalise the existing suite of KPIs (Key Performance Indicators) with the aim of achieving both greater visibility of and clarity about expected service standards.

5.2.2

Following the September 2013 meeting of the committee, members of the Council's client team worked with representatives of the group to consolidate the existing 106 KPI's into 20 customer focused measures. The draft KPIs were then reviewed at the Sustainable Growth and Environment Capital Scrutiny Committee in November 2013. Subsequently the Council has been working with Amey to agree target levels and financial penalties for each KPI.

The revised KPIs are now being used to monitor performance in the following key domains that are of interest and importance to members and to the public:

- Household Waste Collections
- Street sweeping and cleansing, litter and fly tip and the provision and emptying of bins
- Parks, Trees, Grass-cutting, Shrubs and Flowers
- The City Centre
- Handling complaints

The new KPI requirements are set out in the appendix to this report.

5.3

Amey's responsiveness to members

Amey provides services to the Council based on an agreed specification. For Amey to undertake any works beyond the contract requires specific approval from Council's client team. Wherever and whenever possible Amey attempts to provide an integrated response to members' concerns. As well as a bespoke email address, the ward walks remain in place as the key opportunity for members to review issues in their neighbourhoods directly with Amey and to get these resolved.

5.4

Service evolution from original procurement and subsequent savings

Original savings for the Council were determined by the contract specification and the award of the contract to Enterprise Peterborough. Since the award of the

contract, the Council and Amey have remained in constant dialogue about ways of achieving cost reductions without destabilizing service delivery.

In the current year, service changes have been implemented to deliver savings in excess of £1m to the Council. These are made up of:

The Garden Waste Chargeable Service

The collection service previously offered to residents has become a chargeable service, with over 18,000 households signed up for the service.

Self-Managed Sports Facilities

Amey previously provided attendants; the process has begun to transfer to individual clubs the responsibility to undertake these duties themselves. Handovers are being arranged to ensure that the process, which began at the start of the football season, concludes by the end of the year.

Play Area Inspections

Inspection regime modified to weekly from twice weekly

Grass-cutting changes

Majority of amenity grass cutting areas have been changed from a length-based specification to a fixed three-weekly schedule, with the exception of sports areas, major routes into the city, and areas that have been set aside to promote biodiversity.

Bedding Borders

Reduction of bedding areas from roundabouts, these have been returned to grass.

Support for the WEEE Facility

5.5 Council funding for WEEE (Waste Electrical and Electronic Equipment) Reuse has been reduced by two thirds.

Amey Acquisition

Amey has re-launched the new integrated company following the acquisition of Enterprise; the company provides a broad range of services supporting many aspects of peoples everyday lives, new values have been launched with the workforce: PACE, Progressive, Accountable, Collaborative, and Effective.

5.6 Peterborough sits within the company's Government Division headed by Nick Gregg the sector Managing Director, the integration has allowed interaction and support from the wider business in particularly in the design and property management team.

KPI Performance

The KPI performance and service delivery across all service areas has been high overall since the last Scrutiny committee with small number of failures within

passenger transport.

The Contract Performance for last year was measured through 106 Key Performance Indicators (KPIs).

The performance from April 2013 to March 2014 is summarised in the table below.

Summary of KPI Performance April 13 - March 14					
Business Stream	**Total KPIs**	**Measureable Events per annum**	**Fails**	**% Success**	**Comments**
Contract Plans and Reports	11	390	0	100.00%	
Health & Safety and Welfare Reporting	9	6,101	0	100.00%	
Waste & Recycling	8	6,960	1	99.98%	Improvements required on compliance and education
Street Care	32	40,078	0	100.00%	
Property Design & Maintenance	9	52,845	0	100.00%	
Catering	5	4,521	0	100.00%	
Authority Fleet Management	5	575	0	100.00%	
Traveller site management	1	124	0	100.00%	
Courier Service	3	14,088	0	100.00%	
Passenger Transport	18	127,669	12	99.98%	Vehicle breakdowns have caused issues

The areas of failure have related to vehicle reliability within the coach fleet; with this in mind the coach fleet has been refreshed for commencement of the new school term with all five front line coaches being replaced.

In terms of recycling rates, PCC achieved 51.26% in 2013-14 against our target of 65% by 2020. Amey achieved a recycling rate of 45.93% in 2013-14.

In the coming weeks and months we will:

i) Be able to promote new flexibilities in terms of the materials that can be placed within the green bin; specifically, tetrapaks, aluminium trays and foil, plastic film, including plastic bags, and mixed plastics (pots, tubs and trays)
ii) Develop a 'clean and green' plan for implementation over the rest of the year (see 5.10 below) that will include a specific focus on improving

5.7 recycling rates

Green Open Space Implementation Plan

The implementation plan has been agreed, using S106, Poise and CIL funding.

A review group has been formed, chaired by Cllr North.

The intention is now to explore ways of drawing in additional funding.

Six initial projects have been implemented:

- Eye and Thorney Skate Park
- Stanley Recreation Ground Visitor Profile
- Mountsteven Recreation Ground
- Oakdale Avenue Play Area
- Bishop Rd Lighting Project
- Horseshoe Park Development

We are now seeking to use the same process to repair, renovate or otherwise improve the Boardwalks nature reserve.

5.8

Corporate Social Responsibility

Amey are developing a second community engagement plan which will address the following areas.

Supporting Employment Education and Skills

- Local Employment
- Transitional Employment
- Work Placements
- Job Fairs
- Apprenticeships

Supporting the Local Economy

- Support Local Supply Chain
- Volunteering
- Local Awards

Protecting and Conserving the Environment

- Community Clean Ups
- Community Briefing and Workshops
- School Engagement

Being an Active Part of the Community

- Local Events
- Street Surgeries
- Charity Fundraising by Employees
- Sponsorship

5.9 **Health and safety**

5.9.1 Monthly health and safety reviews have been undertaken by both the senior management team and the contract Union representatives. All accident and close call data is reviewed and joint actions are agreed to support the reduction in incidents and accidents on the contract.

5.9.2 With the implementation of the new EIMS smart phone application the number of completed checks has risen to over the company set target. All defects identified during inspections are logged and monitored through to closure on the system.

5.9.3 Amey rolled out the VFL (Visible Felt Leadership) audit programme. The programme is designed to allow senior managers on the contract and the wider exec team, to spend time with operatives to spend “face to face” time and gain feedback from workforce. The programme was rolled out in March 2014.

5.10 **Looking ahead – a cleaner, greener Peterborough**

5.10.1 Over the second half of this year, we plan to launch a ‘clean and green’ campaign focussed on further improving the quality of life of our residents. The campaign will look at: education and enforcement activity, how we influence the behaviour of residents, and how we provide effective ‘joined-up’ responses across our various services to environmental issues. As well as seeking to improve the look of our streets and open spaces, the campaign will seek to identify new and more effective ways to tackle some of the intractable issues we face, such as fly-tipping.

5.10.2 The launch of the My Peterborough app in many ways signals how all Council services will need to evolve further: an ever-more rigorous focus on the visible issues that matter most to the public. With that in mind, Amey is in discussion with the a Council about ways in which its services could be redesigned to provide a more rapid response to issues as they arise - against what is bound to be a background of declining resources.

5.10.3 In addition, Amey continues to examine trends in performance at ward level - to establish a better understanding of and evidence base about residents' behaviours so as to know both what the needs are and how the costs of service delivery vary across the city. This includes, for example, understanding in detail where litter bins are and how well - or not - they are used and what scope there might be for bins to be redeployed.

6. BACKGROUND DOCUMENTS

6.1 None.

7. APPENDICES

7.1 Appendix 1 - New KPIs.
Appendix 1a – New KPIs Customer Satisfaction Methodology
Appendix 1b – New KPIs Grading Images

Appendix 1

Service	What you can expect	How we will measure	Monitoring Frequency	How to report an issue	Penalty	Rachet
Household waste collection	You can expect, on alternate weeks, your black then green and brown bins (if part of the charged service) to be emptied, with the food caddy emptied weekly; in the event that your bin is missed, if you report this by 12.00 it will be collected the same day, if reported after 12 then it will be emptied the following day. All bins will be returned to the point of presentations and assisted collections will be offered where required.	Where the same property is missed twice or more for a particular waste service (e.g food waste collection) in 2 months. Target < 30	Bi Monthly	Resident calls Peterborough Direct, or Amey Peterborough helpdesk	£ 250.00	Monthly
		Number of missed collections at assisted collection properties. Target < 70	Monthly	Resident calls Peterborough Direct, or Amey Peterborough helpdesk	£ 250.00	Monthly
		Number of complaints received with regards to replacement of waste containers. Target < 12 per month	Monthly	Resident calls Peterborough Direct, or Amey Peterborough helpdesk	£ 250.00	Monthly
		Overall household waste collection customer satisfaction from the Citizens panel survey to be above 87.5 % (see appendix 1a) ; taking into account any factors that may reduce satisfaction as a direct result of Council Policy. To be revised annually.	Annually	Survey sent to residents of Peterborough	Variable	None
		Failure to achieve the following recycling performance in the specified contract year (please note these figures will need to be adjusted to take into account the charged garden waste scheme) : 2013/14 - 60% 2014/15 - 61%	Annually	PCC produce statistical information each month with the data provided by Amey Peterborough	£ 57,608.00	None
Street sweeping, washing, litter collection and bin emptying	All 1981 streets will be cleansed within Peterborough and brought back to Grade A standard, this will include road sweeping, litter collection, leaf clearance and street washing. All full litter / dog bins that are reported before 13:00 will be emptied the same day there after the next working day. Graffiti will be removed from PCC land within 6 hours if it is offensive and 3 days for non offensive, while fly tipping will be removed within 2 hours where it is hazardous and within 2 days for all other instances. All PCC highways will be cleansed and central reservations cleared of detritus and weeds. These operations will be carried out in compliance with the street cleansing plan to maintain High, Medium and Low intensity areas.	Overall Street Cleansing customer satisfaction from the Citizens panel survey to be above 61.9% (see appendix 1a) taking into account any factors that may reduce satisfaction as a direct result of Council Policy. To be revised annually.	Annually	Survey sent to residents of Peterborough	Variable	None
		Failure to bring an area back to Grade A standard in accordance with the agreed timeframe set out below demonstrated through 95% of quality audits. The streets are split 41 High intensity 29 Medium and 1911 Low. High intensity being the City centre areas. for grading image see appendix 1b High Medium Low Grade A After Cleansing Grade B 6 hrs 3 working days 3 wks Grade C 3 hrs 2 working days 1 wk Grade D 1 hrs 2 working days 1wk	Monthly	Report is made to Peterborough Direct, or Amey Peterborough helpdesk	£ 1,000.00	Monthly
		Where a litter or dog bin is reported as full or over flowing the Partner will ensure that the bin is emptied in accordance with the following (for grading image see apendix 1b): * In City centre areas within 30 minutes * In all other areas if reported before 1pm emptied the same day * If reported after 1 pm emptied the following working day	Monthly	Report is made to Peterborough Direct, or Amey Peterborough helpdesk	£ 500.00	Monthly
		Fly tipped waste removed within 24 hours where it is hazardous and 48 hours where it is deemed as non hazardous.	Monthly	Report is made to Peterborough Direct, or Amey Peterborough helpdesk	£ 500.00	Monthly
		Agree a target reduction level and associated work plans with Peterborough City Council. Target becomes binding if enforcement responsibility is delegated to Amey Peterborough.	TBC	TBC	TBC	TBC
Parks, trees, grass cutting, shrubs and flowers	An annual plan of shrub, grass and bedding maintenance will be produced to detail the frequency of maintenance in a given area. Amenity grassed areas will be cut on a regular cycle and shrubs will be cut once to a years growth with any health and safety or sightline issues being cut throughout the year. They will supply and maintain all hanging baskets and winter and summer bedding plants. All Trees within Peterborough will be inspected and recorded on a comprehensive risk management database with any remedial work being carried out as and when required. All emergency work will be carried out within 1 day, 6 weeks for a priority and all else within 12 weeks. Litter will be removed from all PCC open space areas to maintain a grade A standard. Green Flag sites will retain their awards and proposals put in place to increase the numbers of across the City. All play equipment and park furniture will be inspected and maintenance carried out where required.	Overall Grounds Maintenance customer satisfaction from the Citizens panel survey to be above 73.6% (see appendix 1a) taking into account any factors that may reduce satisfaction as a direct result of Council Policy. To be revised annually.	Annually	Survey sent to residence of Peterborough	Variable	None
		Failure to maintain and regain Green Flag status in Central Park, Itter Park, Victoria Gardens and Eye Open Space	Annually	Green flag awarded / not awarded	£ 5,000.00	None
		Failure to meet amenity grass cutting frequency (3 weekly from April for 95% of the area) to an appropriate standard / finish for the specific area when cutting complete. *Image to be added*	Monthly	Quality checks performed by Amey / PCC	£ 1,000.00	Monthly
		Failure to carry out a yearly cut of all shrubs to a years growth.	Annually	Thorough the yearly shrub cutting plan	£ 1,000.00	Yearly
		Maintain flowers beds and displays ensuring aesthetically pleasing (ensuring substantially free from weeds).	Monthly	Quality checks performed by Amey / PCC	£250	Monthly
		Any shrub/greenery encroaching on site lines or affecting H&S to be cut back as required within 1 week.	Monthly	Report is made to Peterborough Direct, or Amey Peterborough helpdesk	£250	Monthly
		Failure to inspect trees as instructed by the Authority within the time period set out below. These must be recorded and maintained on an up to date tree asset register • 2 hours if deemed as an emergency • 4 weeks if deemed as a priority • 8 weeks in all other cases	Monthly	Statistical information taken from Works manager	£ 1,000.00	Monthly
		Failure to inspect, maintain and record play area inspections in accordance with the spec	Monthly	Statistical information taken from Works manager	£ 1,000.00	Monthly

City Centre	You can expect the City Centre to have a designated team which will carry out a daily cleanse of benches and bike shelters on Long Causeway, Bridge Street and Lower Bridge street. They will remove pigeon faeces from hard surfaces and remove chewing gum from Cathedral square. There will also be 4 hot washes carried out on the pavement areas per year, a hit squad will be available for spills. Litter bins will be emptied through the day and litter collected from the streets to maintain a Grade A standard	Overall household waste collection customer satisfaction from the Citizens panel survey to be above 75.3% (see appendix 1a); taking into account any factors that may reduce satisfaction as a direct result of Council Policy. To be revised annually.	Annually	Survey sent to residents of Peterborough	Variable	No
	All unauthorised encampments will be visited within 24 hours and communicated to the authority a suitable removal date. Regular visits will be made to ensure that the encampment is not causing anti social behaviour or carrying out any criminal offences. Assistance will also be given when required to evict encampments and arrange for subsequent clear up and securing of the land. Authorised Sites will be maintained and have regular Health and Safety risk assessments carried out including a weekly inspection of the sites. Remedial work will be carried out to the sites as and when required.	Cleanse and secure unauthorised traveller sites within 24 hours of departure	Monthly	Statistical information taken from Works manager	£ 1,000.00	Monthly
Complaints	The partner will adopt the PCC complaints procedure which is a 3 stage procedure with all complaints being responded to within 10 working days. If the partner wishes to change this policy they must set out their proposals and allow 10 working days for the Authority to respond. This excludes complaints specifically regarding Peterborough City Council Policy (for example the introduction of the charged garden waste collection).	Number of stage 2 complaints target < 2 per month	Monthly	Statistical information taken from Works manager	£ 250.00	Monthly

Appendix 1a - Citizens Panel Question(s) Methodology (Based on February 2013 Citizens Survey)

Q1.4: The waste and recycling service overall

Very Good/Good	Adequate	Poor / Very Poor	Don't Use	Total
66.5	26	6.1	1.4	100

92.5

Q1.4: The waste and recycling service overall

>97.5	PCC Pays Amey	£1,000
87.5 - 97.5	No payment	£0
<87.5	Amey Pays PCC	£1,000

Q24: How satisfied or dissatisfied are you overall with street cleaning in Peterborough?

Very/Fairly satisfied	Neither satisfied or dissatisfied	Fairly /Very Dissatisfied	Don't Know/ Can't Recall	Total
49.5	17.4	31.5	1.6	100

66.9

Q24: How satisfied or dissatisfied are you overall with street cleaning in Peterborough?

>76.9	PCC Pays Amey	£2,500
>71.9	PCC Pays Amey	£1,000
61.9 - 71.9	No payment	£0
<61.9	Amey Pays PCC	£1,000
<56.9	Amey Pays PCC	£2,500

Q14: How satisfied or dissatisfied are you overall with the grass cutting service?

Very/Fairly satisfied	Neither satisfied or dissatisfied	Fairly /Very Dissatisfied	Don't Know/ Can't Recall	Total
57	21.6	16.2	5.2	100

78.6

Q14: How satisfied or dissatisfied are you overall with the grass cutting service?

>88.6	PCC Pays Amey	£2,500
>83.6	PCC Pays Amey	£1,000
73.6 - 83.6	No payment	£0
<73.6	Amey Pays PCC	£1,000
<68.6	Amey Pays PCC	£2,500

Q29: How satisfied/dissatisfied with cleanliness/maintenance of City Centre?

Very Good/Good	Adequate	Poor / Very Poor	Don't Know	Total
65.8	14.5	19.7	0	100

80.3

Q29: How satisfied/dissatisfied with cleanliness/maintenance of City Centre?

>90.3	PCC Pays Amey	£2,500
>85.3	PCC Pays Amey	£1,000
75.3-85.3	No payment	£0
<75.3	Amey Pays PCC	£1,000
<70.3	Amey Pays PCC	£2,500

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Appendix 1b

Grading Images

Failure to bring an area back to Grade A standard in accordance with the agreed timeframe set out below demonstrated through 95% of quality audits. The streets are split 41 High intensity 29 Medium and 1911 Low. High intensity being the City centre areas. High Medium Low Grade A After Cleansing Grade B 6 hrs 3 working days 3 wks Grade C 3 hrs 2 working days 1 wk Grade D 1 hrs 2 working days 1wk	Monthly	Report is made to Peterborough Direct, or Amey Peterborough helpdesk	£ 1,000.00	Monthly




Where a litter or dog bin is reported as full or over flowing the Partner will ensure that the bin is emptied in accordance with the following: * In City centre areas within 30 minutes * In all other areas if reported before 1pm emptied the same day * If reported after 1 pm emptied the following working day	Monthly	Report is made to Peterborough Direct, or Amey Peterborough helpdesk	£ 500.00	Monthly




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SUSTAINABLE GROWTH AND ENVIRONMENT CAPITAL SCRUTINY COMMITTEE	Agenda Item No. 9
4 SEPTEMBER 2014	Public Report

Report of the Director of Governance

Contact Officer(s) – Paulina Ford, Senior Governance Officer
Contact Details - Tel: 452508 email: paulina.ford@peterborough.gov.uk

SCRUTINY TASK AND FINISH GROUP FOR PETERBOROUGH FARMS ESTATE STRATEGY – TERMS OF REFERENCE

1. PURPOSE

1.1 The purpose of this report is for the Committee to consider and agree the Terms of Reference and membership of a Task and Finish Group

2. RECOMMENDATIONS

2.1 That the Committee approves the Terms of Reference for the Task and Finish Group.

3. BACKGROUND

3.1 A report was brought to the committee on the 20 January on the management of the agricultural estate and future proposals and a recommendation was agreed to establish a review group to develop a strategy for the farm estates. The farm estates have been in the control of the city council for over a 100 years and in recent years have had a low profile within the council. They are an important economic and social asset of the council and need to be recognised as such through a formal strategy for the medium and long term.

3.2 DRAFT TERMS OF REFERENCE

Terms Of Reference

It is proposed the task and finish group undertakes the following actions -

- Ensure that the profile of the farm estate is raised, both within the council and members but also to the public including the key role is has played for the City over a number of years going back to 1913.
- Develop a strategy for the farms estate and their use into the future
- Consider options around realising maximum value from the estate, including financial, social and environmental returns. Financial considerations include options for sale, expansion, rental levels, alternative uses, attracting external funding or invest to save proposals.

3.3 MEMBERSHIP AND MEETINGS

The proposed membership of the working group is -

Councillor David Over
Councillor Judy Fox
Councillor Ed Murphy
Councillor David Harrington

The group will be supported by Jonathan Lewis (Assistant Director – Education, Resources and Corporate Property) and Jo Gresty (Farms manager). The group will also involve the representative farmer tenants (and other interested bodies) where appropriate to ensure a balance of views and expertise are available for meeting the terms of reference.

4. NEXT STEPS

4.1 If the Terms of Reference and membership of the Task and Finish Group are agreed by the Committee then the Task and Finish Group will conclude recommendations for the January 2015 meeting of the committee.

5. BACKGROUND DOCUMENTS

Used to prepare this report, in accordance with the Local Government (Access to Information) Act 1985

5.1 None

SUSTAINABLE GROWTH AND ENVIRONMENT CAPITAL SCRUTINY COMMITTEE	Agenda Item No. 10
4 SEPTEMBER 2014	Public Report

Report of the Director of Governance

Report Author – Paulina Ford, Senior Governance Officer, Scrutiny
Contact Details – 01733 452508 or email paulina.ford@peterborough.gov.uk

FORWARD PLAN OF KEY DECISIONS

1. PURPOSE

1.1 This is a regular report to the Sustainable Growth and Environment Capital Scrutiny Committee outlining the content of the Forward Plan of Key Decisions.

2. RECOMMENDATIONS

2.1 That the Committee identifies any relevant items for inclusion within their work programme.

3. BACKGROUND

3.1 The latest version of the Forward Plan of Key Decisions is attached at Appendix 1. The Forward Plan contains those key decisions, which the Leader of the Council believes that the Cabinet or individual Cabinet Member(s) can take and any new key decisions to be taken after 19 September 2014.

3.2 The information in the Forward Plan of Key Decisions provides the Committee with the opportunity of considering whether it wishes to seek to influence any of these key decisions, or to request further information.

3.3 If the Committee wished to examine any of the key decisions, consideration would need to be given as to how this could be accommodated within the work programme.

3.4 As the Forward Plan is published fortnightly any version of the Forward Plan published after dispatch of this agenda will be tabled at the meeting.

4. CONSULTATION

4.1 Details of any consultation on individual decisions are contained within the Forward Plan of Key Decisions.

5. BACKGROUND DOCUMENTS
Used to prepare this report, in accordance with the Local Government (Access to Information) Act 1985

None

6. APPENDICES

Appendix 1 – Forward Plan of Key Decisions

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PETERBOROUGH CITY COUNCIL'S FORWARD PLAN OF KEY DECISIONS

PUBLISHED: 22 AUGUST 2014

FORWARD PLAN OF KEY DECISIONS

In the period commencing 28 days after the date of publication of this Plan, Peterborough City Council's Executive intends to take 'key decisions' on the issues set out below. Key decisions relate to those executive decisions which are likely to result in the Council spending or saving money in excess of £500,000 and/or have a significant impact on two or more wards in Peterborough.

If the decision is to be taken by an individual cabinet member, the name of the cabinet member is shown against the decision, in addition to details of the councillor's portfolio. If the decision is to be taken by the Cabinet, it's members are as listed below:
Cllr Cereste (Leader); Cllr Elsey; Cllr Fitzgerald; Cllr Hiller, Cllr Holdich (Deputy Leader); Cllr North; Cllr Seaton; Cllr Serluca and Cllr Scott.

This Plan should be seen as an outline of the proposed decisions for the forthcoming month and it will be updated on a fortnightly basis. Each new Plan supersedes the previous Plan and items may be carried over into forthcoming Plans. Any questions on specific issues included on the Plan should be included on the form which appears at the back of the Plan and submitted to Gemma George, Senior Governance Officer, Chief Executive's Department, Town Hall, Bridge Street, PE1 1HG (fax 08702 388039). Alternatively, you can submit your views via e-mail to gemma.george@peterborough.gov.uk or by telephone on 01733 452268.

Whilst the majority of the Executive's business at the meetings listed in this Plan will be open to the public and media organisations to attend, there will be some business to be considered that contains, for example, confidential, commercially sensitive or personal information. In these circumstances the meeting may be held in private, and on the rare occasion this applies this is indicated in the list below. A formal notice of the intention to hold the meeting, or part of it, in private, will be given 28 clear days in advance of any private meeting in accordance with The Local Authorities (Executive Arrangements) (Meetings and Access to Information) (England) Regulations 2012.

The Council invites members of the public to attend any of the meetings at which these decisions will be discussed (unless a notice of intention to hold the meeting in private has been given).

You are entitled to view any documents listed on the Plan, or obtain extracts from any documents listed or subsequently submitted to the decision maker prior to the decision being made, subject to any restrictions on disclosure. There is no charge for viewing the documents, although charges may be made for photocopying or postage. Documents listed on the notice and relevant documents subsequently being submitted can be requested from Gemma George, Senior Governance Officer, Chief Executive's Department, Town Hall, Bridge Street, PE1 1HG (fax 08702 388038), e-mail to gemma.george@peterborough.gov.uk or by telephone on 01733 452268. For each decision a public report will be available from the Governance Team one week before the decision is taken.

All decisions will be posted on the Council's website: www.peterborough.gov.uk/executivedecisions. If you wish to make comments or representations regarding the 'key decisions' outlined in this Plan, please submit them to the Governance Support Officer using the form attached. For your information, the contact details for the Council's various service departments are incorporated within this Plan.

KEY DECISIONS FROM 19 SEPTEMBER 2014

KEY DECISION REQUIRED	DECISION MAKER	DATE DECISION EXPECTED	MEETING OPEN TO PUBLIC	RELEVANT SCRUTINY COMMITTEE	CONSULTATION	CONTACT DETAILS / REPORT AUTHORS	DOCUMENTS RELEVANT TO THE DECISION SUBMITTED TO THE DECISION MAKER (IF ANY OTHER THAN PUBLIC REPORT)
Care and Repair Heating Framework Agreement - KEY/19SEP14/01 To approve a framework agreement and schedule of rates to deliver Repairs Assitance grant work, specifically the installation of central heating systems in domestic properties.	**Councillor Peter Hiller Cabinet Member for Planning and Housing Services**	**September 2014**	**N/A**	Strong and Supportive Scrutiny Committee	Relevant internal and external stakeholders.	Russ Carr Care & Repair Manager Tel: 01733 863864 russ.carr@peterborough.gov.uk	It is not anticipated that there will be any further documents.
PREVIOUSLY ADVERTISED DECISIONS							
Delivery of the Council's Capital Receipt Programme through the Sale of Dickens Street Car Park - KEY/03JUL/11 To authorise the Chief Executive, in consultation with the Solicitor to the Council, Executive Director – Strategic Resources, the Corporate	**Councillor David Seaton Cabinet Member for Resources**	**September 2014**	**N/A**	Sustainable Growth and Environment Capital	Consultation will take place with the Cabinet Member, Ward councillors, relevant internal departments & external stakeholders as appropriate.	Richard Hodgson Head of Strategic Projects Tel: 01733 384535 richard.hodgson@peterborough.gov.uk	It is not anticipated that there will be any further documents.

Property Officer and the Cabinet Member Resources, to negotiate and conclude the sale of Dickens Street Car Park.							
Care and Repair Framework Agreement - KEY/18DEC12/01 To approve a framework agreement and schedule of rates to deliver disabled facility grant work, specifically providing disabled access to toilet and washing facilities and associated work in domestic properties.	**Councillor Nigel North Cabinet Member for Communities and Environment Capital**	**September 2014**	**N/A**	Strong and Supportive Communities	Relevant Internal Departments.	Russ Carr Care & Repair Manager Tel: 01733 863864 russ.carr@peterborough.gov.uk	It is not anticipated that there will be any further documents.
Expansion of Thorpe Primary School - KEY/13JUN14/03 Award of Contract for the construction of a new school buildings and the refurbishment and remodelling of existing buildings to accommodate the expansion of Thorpe Primary School (1 form entry expansion).	**Councillor John Holdich Cabinet Member for Education, Skills and University**	**September 2014**	**N/A**	Creating Opportunities and Tackling Inequalities	Relevant internal and external stakeholders.	Emma Everitt Project Support Officer Tel: 01733 863660 emma.everitt@peterborough.gov.uk	It is not anticipated that there will be any further documents.

Section 75 Agreement with the Clinical Commissioning Group (CCG) for the Provision of a Joint Child Health and Wellbeing Commissioning Unit - KEY/21FEB14/01 Authorisation for the entry into a statutory Section 75 Agreement, for an initial two year period, with the CCG for the provision of a borderline and Peterborough joint child health and wellbeing commissioning unit.	**Councillor Marco Cereste Leader of the Council and Cabinet Member for Growth, Strategic Planning, Housing, Economic Development and Business Engagement**	**October 2014**	**N/A**	Scrutiny Commission for Health Issues	Relevant internal and external stakeholders.	Oliver Hayward Head of Business Management Tel: 01733 863910 oliver.hayward@peterborough.gov.uk	It is not anticipated that there will be any further documents.
Award of Contract for the Extension of Discovery Primary School - KEY/21MAR14/01 Award of contract for the extension of the Discovery Primary School to accommodate increased pupil numbers.	**Councillor John Holdich Cabinet Member for Education, Skills and University**	**September 2014**	**N/A**	Creating Opportunities and Tackling Inequalities.	Relevant internal and external stakeholders.	Brian Howard Programme Manager - Secondary Schools Development Tel: 01733 863976 brian.howard@peterborough.gov.uk	It is not anticipated that there will be any further documents.

Sale of Greenwood House - KEY/21MAR14/02 Delivery of the Council's Capital Receipt Programme through the sale of Greenwood House, South Parade.	**Councillor David Seaton Cabinet Member for Resources**	**September 2014**	**N/A**	Sustainable Growth and Environment Capital	Relevant internal and external stakeholders.	Simon Webber Capital Projects Officer Tel: 01733 384545 simon.webber@peterborough.gov.uk	It is not anticipated that there will be any further documents.
Sale of the Herlington Centre - KEY/21MAR14/03 Delivery of the Council's capital receipts programme through the sale of the Herlington Centre, Orton Malborne.	**Councillor David Seaton Cabinet Member for Resources**	**September 2014**	**N/A**	Sustainable Growth and Environment Capital	Relevant internal and external stakeholders.	Simon Webber Capital Projects Officer Tel: 01733 384545 simon.webber@peterborough.gov.uk	It is not anticipated that there will be any further documents.
Peterborough City Council Customer Strategy 2014 - KEY/21MAR14/06 To approve the Customer Strategy. The vision is to provide a range of high-quality services whilst maximising customer satisfaction and delivering these services through different channels at the lowest reasonable cost, whilst also reducing or diverting demand.	**Cabinet**	**22 Sep 2014**	**Yes**	Strong and Supportive Scrutiny Committee	Relevant internal and external stakeholders.	Ricky Fuller Head of Strategic Commissioning/Transformation Tel: 01733 452482 ricky.fuller@peterborough.gov.uk	It is not anticipated that there will be any further documents.

Award of Contract for the Extension of Nenegate School - KEY/05SEP14/02 To authorise the construction of an extension at Nenegate School and give authority to the Executive Director of Resources to award the construction contract within the approved budget.	**Councillor David Seaton Cabinet Member for Resources**	**September 2014**	**N/A**	Creating Opportunities and Tackling Inequalities	Relevant internal and external stakeholders.	Alison Chambers Principal Assets Officer (Schools) Tel: 01733 863975 alison.chambers@peterborough.gov.uk	It is not anticipated that there will be any further documents
Formalise Integrated Community Equipment Service Funding and Commissioning Arrangements - KEY/18APR14/01 To formalise integrated community equipment service joint funding arrangements.	**Councillor Wayne Fitzgerald Cabinet Member for Adult Social Care**	**September 2014**	**N/A**	Scrutiny Commission for Health Issues	Relevant internal and external stakeholders.	Nick Blake Head of Commissioning for Older People, Physical Disabilities and Sensory Impairment Tel: 01733 452406 nick.blake@peterborough.gov.uk	It is not anticipated that there will be any further documents.
Award of Contract for Build of a Waste Transfer Station - KEY/18APR14/02 To award a contract for the build of a waste transfer station.	**Councillor Gavin Elsey Cabinet Member for Street Scene, Waste Management and Communications**	**September 2014**	**N/A**	Sustainable Growth and Environment Capital	Relevant internal and external stakeholders.	Paul Robertson Waste Project Officer Tel: 01733 864740 paul.robertson@peterborough.gov.uk	It is not anticipated that there will be any further documents.

Award of Contract for Build of a Household Recycling Centre - KEY/18APR14/03 To award a contract for the build of a household recycling centre.	**Councillor Gavin Elsey Cabinet Member for Street Scene, Waste Management and Communications**	**September 2014**	**N/A**	Sustainable Growth and Environment Capital	Relevant internal and external stakeholders.	Paul Robertson Waste Project Officer Tel: 01733 864740 paul.robertson@peterborough.gov.uk	It is not anticipated that there will be any further documents.
Future of the Eight Former Play Centres - KEY/02MAY14/01 To approve the recommendations for the eight former play centres.	**Councillor Nigel North Cabinet Member for Communities and Environment Capital**	**September 2014**	**N/A**	Sustainable Growth and Environment Capital	Relevant internal and external stakeholders.	Cate Harding Neighbourhood Manager Tel: 317497 cate.harding@peterborough.gov.uk	It is not anticipated that there will be any further documents.
Contract Award for 16+ Supported Accommodation - KEY/02MAY14/04 To award a contract for 16+ supported accommodation.	**Councillor Sheila Scott Cabinet Member for Children's Services**	**September 2014**	**N/A**	Creating Opportunities and Tackling Inequalities	Relevant internal and external stakeholders.	Oliver Hayward Head of Business Management Tel: 01733 863910 oliver.hayward@peterborough.gov.uk	It is not anticipated that there will be any further documents.
The Expansion of Pheonix School - KEY/02MAY14/05 To award a contract for the expansion of Pheonix School, including the approval of property, legal and financial arrangements for various enabling with third parties.	**Councillor David Seaton Cabinet Member for Resources**	**September 2014**	**N/A**	Creating Opportunities and Tackling Inequalities	Relevant internal and external stakeholders.	Brian Howard Programme Manager - Secondary Schools Development Tel: 01733 863976 brian.howard@peterborough.gov.uk	It is not anticipated that there will be any further documents.

Print Managed Services - KEY/13JUN14/01 To enable Council officers to be able to print, copy and scan.	**Councillor David Seaton Cabinet Member for Resources**	**September 2014**	**N/A**	Sustainable Growth and Environment Capital	Relevant internal and external stakeholders.	Ricky Fuller Head of Strategic Commissioning/Transformation Tel: 01733 452482 ricky.fuller@peterborough.gov.uk	It is not anticipated that there will be any further documents.
Peterborough Flood Risk Management Strategy - KEY/25JUL14/01 For Cabinet to approve the Draft Peterborough Flood Risk Management Strategy for public consultation.	**Cabinet**	**22 Sep 2014**	**Yes**	Sustainable Growth and Environment Capital	Relevant internal and external stakeholders.	Julia Chatterton Flood and Water Management Officer Tel: 01733 452620 julia.chatterton@peterborough.gov.uk	It is not anticipated that there will be any further documents.
Joint Venture Implementation - KEY/25JUL14/02 To approve the implementation of the Joint Venture.	**Councillor Marco Cereste Leader of the Council and Cabinet Member for Growth, Strategic Planning, Housing, Economic Development and Business Engagement**	**September 2014**	**N/A**	Sustainable Growth and Environment Capital	Relevant internal and external stakeholders.	Simon Machen Director of Growth and Regeneration Tel: 01733 453475 simon.machen@peterborough.gov.uk	It is not anticipated that there will be any further documents.

Installation of Solar Voltaic (PV) Panels to Schools - KEY/25AUG14/01 To award a contract for the installation of Solar Voltaic (PV) Panels and energy performance measures to schools under the renewable energy and energy efficiency scheme and energy performance contracts (ENPC)	**Councillor David Seaton Cabinet Member for Resources**	**September 2014**	**N/A**	Sustainable Growth and Environment Capital	Relevant internal and external stakeholders.	Steven Morris Client Property Manager Tel: 01733 384657 steven.morris@peterborough.gov.uk	It is not anticipated that there will be any further documents.
New Model for Transforming Day Opportunities for Adults Under 65 - KEY/25AUG14/02 To approve the proposed model for implementation.	**Cabinet**	**3 Nov 2014**	**Yes**	Scrutiny Commission for Health Issues	Relevant internal and external stakeholders.	Mubarak Darbar Head of Commissioning Learning Disabilities Tel: 01733 452509 mubarak.darbar@peterborough.gov.uk	It is not anticipated that there will be any further documents.
Residential and Nursing Care Contracts - KEY/22AUG14/03 To seek approval for the award of contracts to providers of 24 hour residential and nursing care support.	**Councillor Wayne Fitzgerald Cabinet Member for Adult Social Care**	**September 2014**	**n/a**	Scrutiny Commission for Health Issues	Relevant internal and external stakeholders.	Nick Blake Head of Commissioning for Older People, Physical Disabilities and Sensory Impairment Tel: 01733 452406 nick.blake@peterborough.gov.uk	It is not anticipated that there will be any further documents.

Southfields Primary School Expansion - KEY/05SEP14/01 To authorise the construction of an extension to accommodate the expansion of Southfields Primary School.	**Councillor John Holdich Cabinet Member for Education, Skills and University**	**September 2014**	**N/A**	Creating Opportunities and Tackling Inequalities	Relevant internal and external stakeholders.	Emma Everitt Project Support Officer Tel: 01733 863660 emma.everitt@peterborough.gov.uk	It is not anticipated that there will be any further documents
Renewable Energy and Energy Efficiency Scheme - KEY/05SEP14/03 Installation of Solar Photovoltaic (PV) Panels to PCC's Commercial Properties including industrial estates.	**Councillor David Seaton Cabinet Member for Resources**	**September 2014**	**N/A**	Sustainable Growth and Environment Capital	Relevant internal and external stakeholders.	Steven Morris Client Property Manager Tel: 01733 384657 steven.morris@peterborough.gov.uk	It is not anticipated that there will be any further documents.

RESOURCES DEPARTMENT Executive Director's Office at Town Hall, Bridge Street, Peterborough, PE1 1HG
Strategic Finance
Internal Audit
Schools Infrastructure (Assets and School Place Planning)
Corporate Property
Waste and Energy
Strategic Client Services (Enterprise Peterborough / Vivacity / SERCO including Customer Services, ICT and Business Support)

CHILDREN'S SERVICES DEPARTMENT Executive Director's Office at Bayard Place, Broadway, PE1 1FB
Safeguarding Family and Communities
Education
School Improvement
Special Educational Needs / Inclusion and the Pupil Referral Service

ADULT SOCIAL CARE Executive Director's Office at Town Hall, Bridge Street, Peterborough, PE1 1HG
Care Services Delivery (Assessment and Care Management and Integrated Learning Disability Services)
Mental Health
Public Health (including Health Performance Management)

COMMUNITIES DEPARTMENT Director's Office at Bayard Place, Broadway, PE1 1FB
Strategic Commissioning
Safer Peterborough, Cohesion, Social Inclusion and Neighbourhood Management

GOVERNANCE DEPARTMENT Director's Office at Town Hall, Bridge Street, Peterborough, PE1 1HG
Communications
Legal and Governance Services
HR Business Relations (Training and Development, Occupational Health and Reward and Policy)
Strategic Regulatory Services
Performance Management

GROWTH AND REGENERATION DEPARTMENT Director's Office Stuart House, St Johns Street, Peterborough, PE1 5DD
Strategic Growth and Development Services
Strategic Housing
Planning Transport and Engineering (Development Management, Construction and Compliance, Infrastructure Planning and Delivery, Network Management and Passenger Transport)
Commercial Operations (Strategic Parking and Commercial CCTV, City Centre, Markets and Commercial Trading and Tourism)

SUSTAINABLE GROWTH AND ENVIRONMENT CAPITAL SCRUTINY COMMITTEE **Updated: 27 August 2014**
WORK PROGRAMME 2014/15

Meeting Date	Item	Progress
17 July 2014 *Draft Report 30 June* *Final Report 7 July*	**Wind and Solar Farm Working Group Report** **Contact Officer: Mike Rowan**	Referred back to working group for additional work and then to Cabinet.
	Serco Annual Monitoring Report **Contact Officer: Paul Richards / Dominic Hudson**	A further Annual Report in one year.
	The Draft Developer Contributions Supplementary Planning Document **Contact Officer: Gemma Wildman**	Comments from Committee to be incorporated into a report to Cabinet.
	Review of 2011/12 and Future Work Programme To review the work undertaken during 2011/12 and to consider the future work programme of the Committee. **Contact Officer: Paulina Ford**	
4 September 2014 *Draft Report 15 Aug* *Final Report 22 Aug*	**Initial Draft Peterborough Economic Action Plan** **Contact Officer: Steve Bowyer**	
	Amey Annual Partnership Report **Contact Officer: Martin Raper / Dominic Hudson**	

Meeting Date	Item	Progress
	Draft Peterborough Flood Risk Management Strategy **Contact Officer: Julia Chatterton**	
	Green Leases – Discussion Paper **Contact Officer: Charlotte Palmer**	
	Scrutiny Task and Finish Group for Council Farms Estate Strategy - Terms of Reference **Contact Officer: Jonathan Lewis**	
16 October 2014 *Draft Report 29 Sept* *Final Report 6 Oct*	**Asset Disposal** **Contact Officer: Jonathan Lewis**	
	ICT Strategy **Contact Officer: Richard Godfrey**	
	Joint Venture Progress Report **Contact Officer: Simon Machen**	
	Carbon Emissions Management Action Plan - Annual Update To Scrutinise the Peterborough City Council's 2013/14 carbon dioxide emissions report and make any recommendations necessary. **Contact Officer: Charlotte Palmer**	

Meeting Date	Item	Progress
	Progress Report from the Cabinet Member for Growth, Strategic Planning, Housing, Economic Development and Business Engagement	
6 November 2014 *Draft Report 20 Oct* *Final Report 27 Oct*	**Opportunity Peterborough Draft Economic Action Plan** **Contact Officer: Steve Bowyer**	
	Council Farms Estate Strategy – Report of Task and Finish Group **Contact Officer: Jonathan Lewis**	
	Community Assets Rationalisation Programme **Contact Officer: Jonathan Lewis / Adrian Chapman**	
	Portfolio Progress Report from the Cabinet Member for Communities and Environment Capital	
13 January 2015 *Draft Report 24 Dec* *Final Report 31 Dec*	**2015/16 Local Transport Plan Capital Programme of Works (CPW)*** To consider the Local Transport Plan Capital Programme of Works for 2015/2016. **Contact Officer: Mark Speed**	

Meeting Date	Item	Progress
	Report on the Impact of Subsidised Bus Services Cuts **Contact Officer: Mark Speed**	
	Opportunity Peterborough Annual Progress Report **Contact Officer: Steve Bowyer**	
	Brown Bins Review **Contact Officer: Ricky Fuller**	
	Skanska Annual Monitoring Report **Contact Officer: Andy Tatt / Andrew Denman**	
February 2015 **(Joint Meeting of the Scrutiny Committees and Commissions) T.B.C.**	**Budget 2015/16 and Medium Term Financial Plan*** To scrutinise the Executive's proposals for the Budget 2012/13 and Medium Term Financial Plan. **Contact Officer: John Harrison/Steven Pilsworth**	

Meeting Date	Item	Progress
17 March 2015 *Draft Report 26 Feb* *Final Report 5 March*	**Annual Human Resources Monitoring Report** To scrutinise the Annual HR Monitoring Report. **Contact Officer: Mike Kealey**	
	Corporate Complaints Annual Monitoring Report 2013/2014 To scrutinise the complaints monitoring report 2013/14 and identify any areas of concern. **Contact Officer: Mark Sandhu/Belinda Evans**	
	Opportunity Business Plan **Contact Officer: Steve Bowyer**	
	20MPH Speed Limit Update Report **Contact Officer: Clare George**	

TO BE PROGRAMMED 2014/2015

Item	Comments
PCC Biodiversity Strategy 2013/14 Annual Report - Contact Officer: James Fisher	
*Affordable Housing Capital Funding Policy	This item to be included within the Budget 2015/16 and Medium Term Financial Plan*

TO BE PROGRAMMED 2015/2016

Item	Comments
Environment Capital Action Plan Progress Report	

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