Notice of meeting of

Local Development Framework Working Group

To: Councillors Reid (Chair), D'Agorne, Horton, Hudson, Merrett, Moore, Simpson-Laing, Waller, R Watson and Watt

Date: Wednesday, 27 June 2007

Time: 6.00 pm

Venue: The Guildhall

AGENDA

1. Declarations of Interest

At this point, members are asked to declare any personal or prejudicial interests they may have in the business on this agenda.

2. Minutes (Pages 1 - 4)

To approve and sign the minutes of the meeting of the Local Development Framework Working Group held on 5 June 2007.

3. Public Participation

At this point in the meeting, members of the public who have registered their wish to speak, regarding an item on the agenda or an issue within the remit of the Working Group, may do so. The deadline for registering is 5.00 pm on Tuesday 26 June 2007.

4. City of York Council - Strategic Flood Risk Assessment (Pages 5 - 106)

This report advises Members on the production of the Strategic Flood Risk Assessment (SFRA) for York as recommended by national planning guidance in Planning Policy Statement 25 (PPS25) (Development and Flood Risk) and regional planning

guidance in the emerging Regional Spatial Strategy (draft for public consultation December 2005). The report outlines the requirements of PPS25 and the Regional Spatial Strategy (December 2005) and the key components of the proposed SFRA, and seeks approval of the draft SFRA for publication as part of the Local Development Framework evidence base.

[The appendices to Annex A are available to view in the Members' Library, at Guildhall Reception and on the Council's website at www.york.gov.uk]

5. Open Space, Sport and Recreation Study - Evidence Base (Pages 107 - 232)

This report seeks approval of the City of York Council - Draft Open Space, Sport and Recreation Study, which has been prepared for the Council by open space consultants, PMP. The study will form the open space, sport and recreation part of the Evidence Base for the Local Development Framework.

[The appendices to Annex A are available to view in the Members' Library, at Guildhall Reception and on the Council's website at www.york.gov.uk]

6. Any other business which the Chair considers urgent under the Local Government Act 1972.

Democracy Officer:

Name: Sarah Kingston
Contact details:

- Telephone – (01904) 552030
- E-mail – sarah.kingston@york.gov.uk

For more information about any of the following please contact the Democracy Officer responsible for servicing this meeting:

- Registering to speak
- Business of the meeting
- Any special arrangements
- Copies of reports

Contact details are set out above.

Agenda Item 2

City of York Council	Minutes
MEETING	LOCAL DEVELOPMENT FRAMEWORK WORKING GROUP
DATE	5 JUNE 2007
PRESENT	COUNCILLORS REID (CHAIR), ALEXANDER (AS SUBSTITUTE FOR HORTON), D'AGORNE, HUDSON, MERRETT, MORLEY (AS SUBSTITUTE FOR MOORE), SIMPSON-LAING, R WATSON AND WATT
APOLOGIES	COUNCILLORS HORTON, MOORE AND WALLER
IN ATTENDANCE	COUNCILLOR PIERCE

38. DECLARATIONS OF INTEREST

Members were invited to declare at this point in the meeting any personal or prejudicial interests they might have in the business on the agenda.

Councillor D'Agorne declared a personal non-prejudicial interest in agenda item 4 (York Northwest Area Action Plan), with regards to educational issues, as an employee at York College.

Councillor Merrett declared a personal non-prejudicial interest in agenda item 4 (York Northwest Area Action Plan) as an employee of a rail consultancy firm.

Councillor Simpson-Laing declared a personal non-prejudicial interest in agenda item 4 (York Northwest Area Action Plan) as she lived in the Northwest Area.

39. MINUTES

RESOLVED: That the minutes of the Local Development Framework Working Group meeting held on 6 March 2007 be approved and signed by the Chair as a correct record.

40. PUBLIC PARTICIPATION

It was reported that there had been no registrations to speak at the meeting under the Council's Public Participation Scheme.

41. YORK NORTHWEST AREA ACTION PLAN

Members received a report which set out the progress on the Issues and Options stage of the York Northwest Area Action Plan (AAP), outlined the consultation responses received on the Scoping Report for the Sustainability Appraisal for the AAP and suggested alterations arising from

the comments made, and sought their views on the amended document. The report was supported by an explanatory presentation from officers.

The report presented two options for consideration:
- Option 1 – To proceed with the revised Scoping Report attached at Appendix 1 of the report;
- Option 2 – To request amendments were made to Scoping Report.

Appendix 2 of the report set out the comments received during the consultation on the York Central Scoping Report and officer responses to them, and Appendix 3 set out the Local Development Framework's comments on this report at its meeting on 31 July 2006 and associated officer responses. Appendix 4 of the report set out the comments received during the consultation on the York Northwest Scoping Report, into which the York Central Scoping Report had been incorporated, and officer responses to them.

A tracked changes version of Appendix 1, which indicated the proposed revisions, had been circulated to Members for consideration.

Officers outlined three additional proposed amendments to the Scoping Report:
- To paragraph 2.1.2 to delete the words "draft guidance" from the first sentence and amend the date in footnote 2 to "November 2005";
- To the wording of the last sentence of paragraph 5.2.36 to read, "Other identified ecological interests could include bats, reptiles, black redstart and invertebrates";
- To paragraph 5.2.73 to reflect that the new building for Manor School had received planning permission.

Members thanked officers for their work and proposed a number of further amendments to the Scoping Report (detailed below).

RECOMMENDED: (i) That the comments received in relation to the York Central Scoping Report be noted;

(ii) That the changes made in relation to the feedback received and detailed in Appendices 2 and 3 be noted;

(iii) That the content and responses received on the Scoping Report for the York Northwest Area Action Plan be noted and the suggested changes to this in the revised document be agreed, subject to the inclusion of the three amendments proposed by officers and the following further amendments:

(a) To include reference to the Building Research Establishment Environmental Assessment Method (BREEAM) in the main body of the report;

(b) To ensure the inclusion of comprehensive and up to date information regarding income and affluence, ethnicity, housing, age of vehicles and car ownership, and adult education, and to highlight where this information was unavailable;

(c) To paragraph 5.2.13 to make reference to successful transport strategies;

(d) To paragraph 5.2.16 to make reference to transport infrastructure;

(e) To the first bullet point in paragraph 5.2.68 to clarify the reduction in traffic levels;

(f) To paragraph 5.2.66 to refer to any relevant findings from the Faber Maunsell study;

(g) To paragraph 5.2.91 to correct the location of the British Sugar sports and social club to Plantation Drive;

(h) To rephrase the first sentence of paragraph 9.2.2;

(i) To present all maps and diagrams on A4 sheets to ensure they are legible;

(j) To Figure 11 to include a blank objectives compatibility matrix and to indicate that this will be completed at a later stage;

(k) To add indicators relating to local services, local leisure facilities, employment levels for school leavers, overall volume of transport, and tackling existing air quality hotspots and avoiding creating new ones;

(l) To amend the description of properties in the section on Council Tax bands;

(m) Any further changes resulting from detailed comments on indicators submitted by Members in writing, where baseline information is available.

REASON: (i)-(ii) To ensure the feedback received from all stakeholders was taken into account in the report produced;

(iii) To ensure the methodology used to undertake the Sustainability Appraisal is appropriate and relates to the circumstances of York Northwest.

COUNCILLOR A REID
Chair
The meeting started at 4.30 pm and finished at 5.45 pm.

Local Development Framework Working Group **27th June 2007**

Report of the Director of City Strategy

City of York Council – Strategic Flood Risk Assessment

Summary

1. This report advises Members on the production of the Strategic Flood Risk Assessment (SFRA) for York as recommended by national planning guidance in Planning Policy Statement 25 (PPS25) (Development and Flood Risk) and regional planning guidance in the emerging Regional Spatial Strategy (draft for public consultation December 2005). The report outlines the requirements of PPS25 and the Regional Spatial Strategy (December 2005) and the key components of the proposed SFRA. A draft of the SFRA main report is attached as Annex A to this report, the SFRA appendices and associated maps are available in the Members Library, in Guildhall Reception and from the author of the report. Members are asked to approve this document for publication as part of the Local Development Framework evidence base.

Background

2. PPS25 sets out the governments policy on planning for flood risk. The guidance recommends that a SFRA should be carried out by the local planning authority to inform the preparation of its Local Development Documents (LDD's), having regard to catchment-wide flooding issues which affect the area. The SFRA will be a key part of the Local Development Framework evidence base which will inform the Core Strategy, the Key Allocations DPD and the Area Action Plans for York North West and the City Centre.

3. The emerging Regional Spatial Strategy (December 2005) also highlights the risk and management of flooding for the region. The planning guidance advices that: "Local Authorities should undertake strategic flood risk assessments". Policy ENV1 states that "development in high flood risk areas will be avoided, where possible, flood management will be undertaken pro actively and the allocation of areas for development will take place in line with strategic flood risk assessments".

4. The City of York Council's SFRA which was undertaken by the Council's Engineering Consultancy assess the different levels of flood risk in the York Local Authority area and maps these to assist with statutory land use

planning. It provides concise information on flood risk issues to aid planners in the preparation of the Local Development Framework and in the assessment of future planning applications.

Key Components of SFRA

5. The proposed SFRA, attached as Annex A to this report, covers five key areas each of which is detailed below:

   i. Introduction – outlines the background into the effects of flooding and how it has affected the York area and highlights the purpose of the assessment.

   ii. Background – provides an overview of York's river network including a broad description of the general physical characteristics, the influences of climate change, and international, national, regional and local planning policies.

   iii. Flood Risk in York : Key Issues – assesses in detail the flood risk issues affecting the three main rivers in York namely the River Ouse, the River Foss and the River Derwent, and highlights the key issues for each catchment.

   iv. Approach to Flood Risk – detailed recommendations are provided for a future policy approach for the York area in each flood risk zone. These are split into two sections covering Forward Planning and Development Control.

   v. Sequential Test and Exception Test - provides detailed information on the Sequential Test and the Exception Test for the York Local Authority Area. The guidance is split down into Forward Planning and Development Control.

Options

6. Members have two options relating to the proposed SFRA:

   Option 1: To approve the SFRA, attached as Annex A, for publication as part of the Local Development Framework evidence base.

   Option 2: To seek amendments to the SFRA through the recommendations of the Working Group or alternatively request that Officers prepare an alternative flood risk document.

Analysis

7. The SFRA has been produced inline with national and regional planning policy which recommends that Local Authorities prepare such a study. The SFRA assesses and evaluates the different levels of flood risk in the York Local Authority Area, and maps these to assist with land use planning. It will inform the preparation of the Local Development Framework and in the assessment of future planning applications by Development Control, having regard to catchment-wide flooding issues.

8. The SFRA provides a comprehensive assessment of flood risk, which takes the advice given by the Environment Agency further. The Environment Agency have produced flood risk maps which divide flood risk into three different zones these include Zone 1 (Little or no risk) Zone 2 (Low to medium risk) and Zone 3 (High risk). Through meeting and liaising with the Environment Agency regarding work on the SFRA, it has helped refine the mapping of their three zones. In addition the SFRA has subdivided Zone 3 (High Risk) taking into account local variations and flood defences into the following:

   - 3a (i) – areas at high risk of flooding which are currently defended to the appropriate minimum standard as defined by PPS25 (1 in 100-year protection)

   - 3a (ii) – areas at high risk of flooding which are currently defended to the appropriate minimum standard for existing development as defined by Defra (50 year-protection), but are not defended to the appropriate minimum standard for new development as defined by PPS25 (1 in 100-year protection)

   - 3a (iii) – areas at high risk of flooding which are not currently defended to the appropriate minimum standard as defined by Defra (50-year protection) and

   - 3b - Functional Flood Plains

9. The SFRA reflects PPS25 in that when considering new development a sequential risk based approach must be taken, which steers new development to areas at lowest probability of flooding (Zone 1, then Zone 2 then Zone 3a(i), 3a(ii), 3a(iii) and 3(b)). In addition the SFRA also provides advice on the different types of development which may not be suitable in different flood risk zones.

10. The SFRA indicates when an Exception Test should be considered. The Exception Test provides a method of managing flood risk while still allowing necessary development to occur for wider sustainable development reasons. This is clearly a key consideration in York where some of our key Brownfield regeneration sites are in flood risk areas.

Key Implications for the Local Development Framework

Core Strategy

11. The LDF Core Strategy will direct the nature and location of growth by delivering a spatial strategy and a series of strategic policies.

12. The spatial strategy will consider the characteristics of York's main urban area and outlying villages alongside other evidence base work which considers York's physical and environmental constraints, including the SFRA. Based on this analysis, the outcome will be a strategy which identifies a hierarchy of settlements to which differing levels of growth would be directed. The emerging Core Strategy Issues and Options consultation document will invite

views on which influences/constraints should inform the spatial strategy, and will present options for how the different flood zones identified on the GIS based maps should constrain growth.

13. In terms of strategic policy, a key objective of the LDF is to ensure that new development is not subject to, nor contributes to, inappropriate levels of flood risk, taking into account the full likely impacts of climate changes. Here, the issues and options paper will consider the types of development which may be appropriate in the flood zones identified, within the context of PPS25 and the 'sequential test'. This will deliver a proactive policy approach to future land allocations and also set the policy framework against which we would assess future development proposals within land at risk of flooding.

Key Allocations Development Plan Document

14. The SFRA will form part of the evidence base to support the allocation of sites in the Key Allocations Development Plan Document (DPD). The Key Allocations DPD will show all the sites which have been specifically identified for development in order to meet the Council's vision and objectives and the strategic policies of the Core Strategy. The level of flood risk as assessed by the SFRA will be a key part of the criteria used to determine whether sites are appropriate for different types of development and to prioritise the development of sites in accordance with the sequential test. The flood risk zones and associated maps set out in the SFRA enable a full understanding of the anticipated level of flood risk when allocating a site for a specific use.

Area Action Plans

15. The SFRA will also provide a key part of the evidence base in determining the nature, type and location of development in the City Centre and the York North West Action Areas, taking an approach as set out above at paragraph 14.

Corporate Priorities

16. The proposed SFRA supports the following Corporate Strategy Priorities:

- improve the actual and perceived condition and appearance of the City's streets, housing estates and publicly accessible spaces;
- improve leadership at all levels to provide clear, consistent direction to the organisation; and
- Improve the way the Council and its partners work together to deliver better services for the people who live in York.

Implications

17. Implications are as listed below:

- **Financial:** There are no Financial implications
- **Human Resources (HR):** There are no HR implications.
- **Equalities:** There are no Equalities implications.
- **Legal:** There are no Legal implications
- **Crime and Disorder:** There are no Crime and Disorder implications.
- **Information Technology (IT):** There are no IT implications.
- **Property:** There are no property implications.
- **Other:** There are no other known implications.

Risk Management

18. In compliance with the Council's risk management strategy. There are no risks associated with the recommendations of this report.

Recommendations

19. That Members:

(i) approve, subject to the recommendations of this working group, the proposed Strategic Flood Risk Assessment included as Annex A to this report, for publication as part of the Local Development Framework evidence base

Reason: So that the Strategic Flood Risk Assessment can be used as part of the Local Development Framework evidence base.

(ii) delegate to the Director of City Strategy in consultation with the Executive Member for City Strategy, the making of any other necessary changes arising from the recommendation of the LDF Working Group, prior to its publication as part of the Local Development Framework evidence base.

Reason: So that any recommended changes can be incorporated into the Strategic Flood Risk Assessment prior to its publication.

Contact Details

Author:
Anna Woodall
Assistant Development Officer
City Development Team
Tel: 551491

Chief Officer Responsible for the report:
Damon Copperthwaite
Assistant Director of City Development and Transport
Tel: 551448

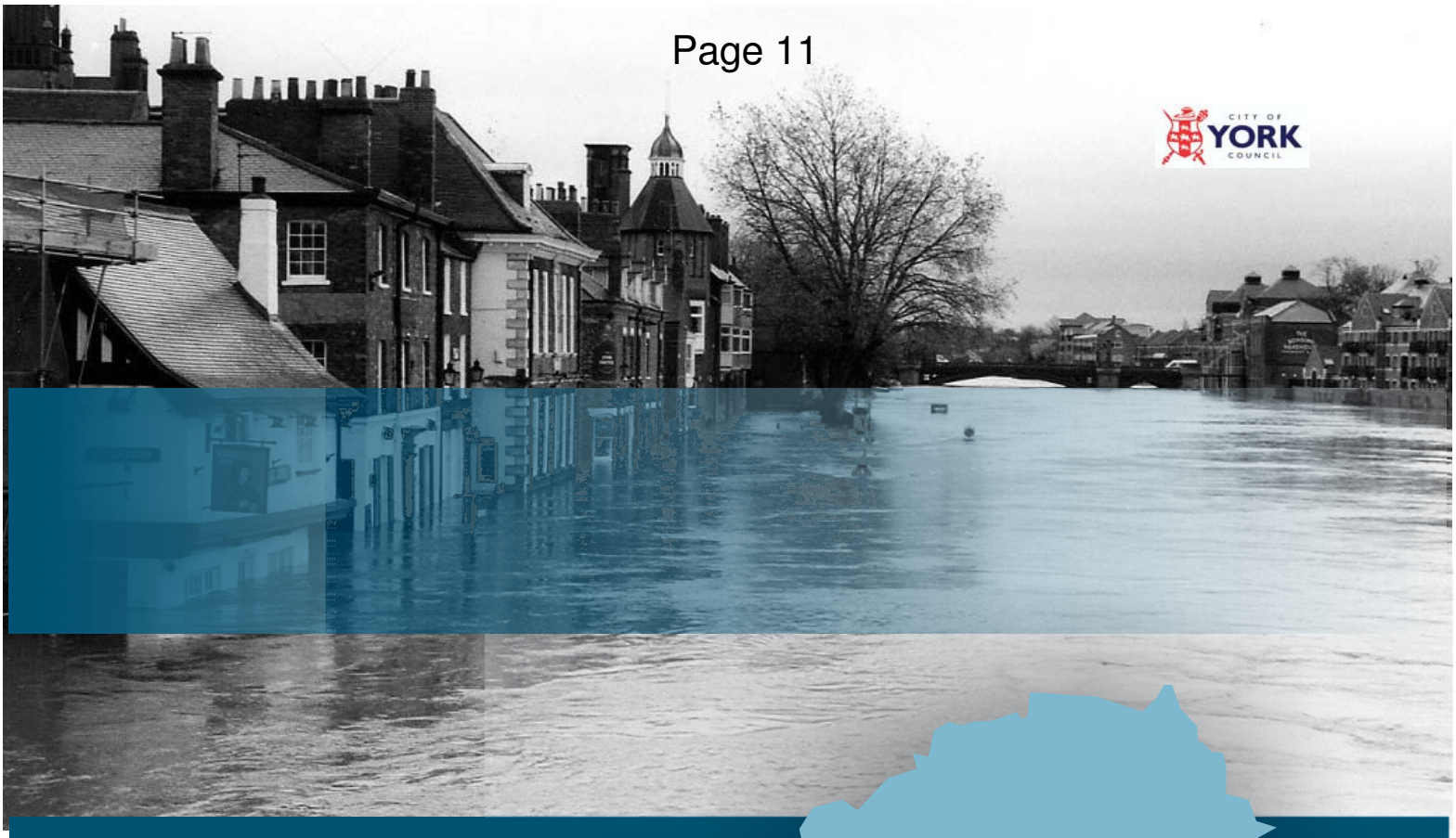
Report Approved √ **Date** *18/06/2007*

Specialist Implications Officers: *None*
Wards Affected: *List wards or tick box to indicate all* **All** √

For further information please contact the author of the report

Background Papers:
None

Annex A: City of York Council Strategic Flood Risk Assessment (Main Document)



Evidence Base

City of York LDF Local Development Framework

Strategic Flood Risk Assessment

June 2007

City of York Council

Strategic Flood Risk Assessment

York Consultancy

Contents

Figures

(Please see accompanying map booklet)

Tables

Glossary

Attenuation	Reduction of peak flow and increased duration of a flow event.
Breach	Flood defence failure, usually caused by water seepage through cracks in the structure during flood events. Over time, the water pressure widens the cracks until part of the defence structure collapses and water flows freely through the defence. Earth defences are particularly vulnerable to this type of failure, as the breach can be widened significantly by fast flowing water.
Brownfield Land	Land which is or was occupied by a permanent structure, including the curtilage of the developed land and any associated fixed surface infrastructure (PPS3 Annex B).
Design Flood Event	Flood event that has a given probability of occurrence, (e.g.1 in 100-year), used for designing flood defences and production of Environment Agency Flood Zone Maps.
Flood Defences	Various fixed man-made structures, such as earth embankments, floodwalls, sluice-gates, storage lagoons, designed to prevent flooding of areas behind the defences.
Flooding Direction	A Direction made under the Town and County Planning (Flooding) (England) Direction 2006 whereby a local planning authority must refer a planning application through the Government Office to determine whether it should be called-in for a decision by the Secretary of State where it is proposed to grant planning permission in the face of a sustained objection by the Environment Agency.
Flood Resilience	Built-in measures carried out on properties situated on the floodplain, to increase their resistance to flood damage. These either prevent the penetration of floodwater by barriers or seals, or ensure that if water were to enter the property, less damage would be caused e.g. raised plug sockets, rendered walls.
Floodplain	The area on the sides of a stream, river, or watercourse that is subject to periodic flooding. The extent of the floodplain is dependent on soil type, topography, and water flow characteristics.
Freeboard	The difference between the flood defence level and the design flood level.
Greenfield Land	Land that has not been previously developed.
Hydraulic	Related to the flow of water.
Hydrograph	Diagram showing flow rates varying over time.
Inundation	The rising of a body of water and its overflowing onto normally dry land.
Local Development Framework	The Local Development Framework (LDF) is at the heart of the new planning system introduced by the Planning and Compulsory Purchase Act 2004. It is a 'portfolio' of policy documents produced by Local Planning Authorities, to replace the Local Plan.

Major development	A major development is a) where the number of dwellings to be provided is ten or more, or the site area is 0.5 ha or more or b). non-residential development, where the floorspace to be provided is 1,000m2 or more, or the site area is 1 ha or more.
Onset of Flooding	Like 'standard of protection', this defines the probability of a flood event. However, in this case, it is when a defence is likely to be at risk of overtopping and some flooding is likely to occur. For this reason, the water level that causes the onset of flooding has a lower probability (i.e. it is less likely to occur) than the water level used to calculate standard of protection.
Overtopping	Flow of floodwater over the top of flood defences.
Rapid Inundation Zone	The area near to flood defences, where a breach or the source of flooding could create a significant flood hazard i.e. risk to life due to high velocity floodwaters and significant depth.
Risk Based Approach	This takes into account all factors relevant to flooding, the nature and expected lifetime of the development proposed, and the extent to which it is designed to deal with flood risk.
Sequential Test	The sequential test is the process by which local planning authorities, in drawing up or revising policies in development plans, or in considering planning applications, give priority in allocating and permitting sites for development in order of acceptability. In the case of flooding, this means giving priority to those sites in flood zones representing little or no risk and only considering higher risk options if it can be demonstrated that there are no suitable alternative sites in a lower risk category.
Standard of Protection	This is the probability of the flood event that the defence was designed to protect against. However, an event that results in a higher water level than the design flood event level would not necessarily overtop the defence. This is because the height of a defence includes an allowance for additional factors such as wave action, modeling uncertainties and global warming.
Sustainable Drainage Systems (SUDS)	A sequence of management practices and control structures, often referred to as SUDS, designed to drain water in a more sustainable manner than some conventional techniques. Typically these are used to attenuate run-off from development sites.
Windfall sites	Sites which become available for development unexpectedly and are therefore not included as allocated land in a planning authority's development plan.

Abbreviations

ABI	Association of British Insurers
BRE	Building Research Establishment
CIRIA	Construction Industry Research and Information Association
CYC	City of York Council
DEFRA	Department for the Environment, Food and Rural Affairs
EA	Environment Agency
FRA	Flood Risk Assessment
LDF	Local Development Framework
AOD	Above Ordnance Datum
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
RSS	Regional Spatial Strategy
SFRA	Strategic Flood Risk Assessment
SUDS	Sustainable Urban Drainage Systems
IDB	Internal Drainage Board

Executive Summary

Purpose of the Assessment

'The Strategic Flood Risk Assessment (SFRA) assesses the different levels of flood risk in the York Unitary Authority area and maps these to assist with statutory land use planning. It provides concise information on flood risk issues, which will assist planners in the preparation of their Local Development Framework (LDF) and in the assessment of future planning applications. It is also intended that this document may be used by the general public and those wishing to propose developments as a guide to the approach that Local Planning Authorities will follow in order to take flood risk issues into account in a sustainable manner'.
The SFRA has also been produced in response to Planning Policy Statement 25 (PPS25) "Development and Flood Risk", which sets out the government policy on planning for flood risk and recommends that Local Planning Authorities prepare a SFRA.

Outputs

The Key outputs of this study include:

- An overview of flood risk issues in the York area
- Maps of the flood risk zones within the York area.
- A summary of the sequential flood risk test and exception test within the planning system and gives more detail of these tests for a York perspective.
- Recommended policies for forward planning
- Recommended guidance for development control
- General drainage guidance

Comment is also given with regards to City of York Council's management of development and flood risk in line with PPS25, which sets out the following three key requirements: -

- The need to **adopt a risk-based approach** to proposals for development in or affecting flood risk areas.
- The requirement to apply this risk-based approach to the preparation of development plans and development control decisions through a **sequential test.**

  The need for all development plans to consider flood risk areas and for the **Environment Agency to provide advice on flood risk and flood defences**.

Following the identification and mapping of flood risk issues within the York Area, guidance has been developed to assist planners with the implementation of PPS25. Section 4, which incorporates **Tables 4.1, 4.2** and policy guidance, are particularly relevant sections for potential developers and landowners. **Tables 4.1, 4.2** and the Environment Agency's Flood Risk Matrix **(Table 1.1)** can also be found at the end of this summary.

Policy Recommendations for Forward Planning

As part of the preparation of the Local Development Framework, site allocations must be made to identify areas where major developments are expected. When making site allocations planners are required to consider a variety of material planning considerations,

including flood risk. Certain types of development are more vulnerable than others to the potential impacts of flooding, and as such the type of acceptable development varies with the degree of flood risk. In order to assist planners within the York area a series of policy recommendations have been developed to provide advice on the practical implementations of the guidance contained within PPS25. These policy recommendations include guidance on the type of development, which maybe appropriate for each flood risk zone and the mitigation measures that may need to be considered in developments in this area to manage flood risk issues. This guidance, together with the flood risk maps can be used to assist in the site allocation process.

Guidance for Development Control

Flood risk is a material planning consideration, which should be taken into account when making a determination for planning permission. In order to assist both planners and developers with the York area, guidance has been developed as part of the SFRA to provide advice on the practical implementation of PPS25 when considering a particular development site. This guidance, together with the flood maps and the Flood Risk Assessment prepared by the developer can be used to assist in the development control process.

A web-based consultation paper, **'Development and Flood Risk: A Practice Guide Companion to PPS25 – Living Draft',** was published by the ODPM in February 2007 to provide advice on practical implementation of PPS25 policy (this can be viewed at www.communities.gov.uk/index.asp?id=1504639). The consultation period for this draft closes on 20 August 2007, and the comments will then be assessed to ensure the final version is clear, succinct, comprehensive and workable.

The York area is drained by three Main Rivers, fed by a number of various sized minor tributaries. This river network is shown on **Figure 1**, and the SFRA is broken down into separate areas covering the following catchment boundaries, as shown on **Figure 6**: -

- River Ouse
- River Foss
- River Derwent

This document has been prepared by City of York Council's Engineering Consultancy, using local knowledge and data, aided by numerous studies for the local catchment carried by the following consultants on behalf of the council, Internal Drainage Boards and the Environment Agency (North East - Dales Area): -

Arup

Atkins

Babtie Group Ltd

Bullens Consultants

JBA Consulting

Table 4.1: Flood Risk Vulnerability Classification

Essential Infrastructure	• Essential transport infrastructure (including mass evacuation routes) that has to cross the area at risk, and strategic utility infrastructure, including electricity generating power stations and grid and primary substations.
Highly Vulnerable	• Police stations, Ambulance stations, Fire stations, Command Centres and telecommunications installations required to be operational during flooding. • Emergency dispersal points. • Basement dwellings. • Caravans, mobile homes and park homes intended for permanent residential use. • Installations requiring hazardous substances consent.
More Vulnerable	• Hospitals. • Residential institutions such as residential care homes, children's homes, social services homes, prisons and hostels. • Buildings used for: dwelling houses; student halls of residence; drinking establishments; nightclubs; and hotels. • Non–residential uses for health services, nurseries and educational establishments. • Landfill and sites used for waste management facilities for hazardous waste. • Sites used for holiday or short-let caravans and camping, **subject to a specific warning and evacuation plan**.
Less Vulnerable	• Buildings used for: shops; financial, professional and other services; restaurants and cafes; hot food takeaways; offices; general industry; storage and distribution; non–residential institutions not included in 'more vulnerable'; and assembly and leisure. • Land and buildings used for agriculture and forestry. • Waste treatment (except landfill and hazardous waste facilities). • Minerals working and processing (except for sand and gravel working). • Water treatment plants. • Sewage treatment plants (if adequate pollution control measures are in place).
Water-compatible Development	• Flood control infrastructure. • Water transmission infrastructure and pumping stations. • Sewage transmission infrastructure and pumping stations. • Sand and gravel workings. • Docks, marinas and wharves. • Navigation facilities. • MOD defence installations. • Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location. • Water-based recreation (excluding sleeping accommodation). • Lifeguard and coastguard stations. • Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms. • Essential ancillary sleeping or residential accommodation for staff required by uses in this category, **subject to a specific warning and evacuation plan**.

Notes:

1) This classification is based partly on Defra/Environment Agency research on Flood Risks to People (FD2321/TR2) and also on the need of some uses to keep functioning during flooding.

2) Buildings that combine a mixture of uses should be placed into the higher of the relevant classes of flood risk sensitivity. Developments that allow uses to be distributed over the site may fall within several classes of flood risk sensitivity.

3) The impact of a flood on the particular uses identified within this flood risk vulnerability classification will vary within each vulnerability class. Therefore, the flood risk management infrastructure and other risk mitigation measures needed to ensure the development is safe may differ between uses within a particular vulnerability classification.

Table 4.2: Flood Risk Vulnerability and Flood Zone 'Compatibility'

Flood Risk Vulnerability Classification		Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Flood Zone	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test required	✓	✓
	Zone 3a(i) (100-year protection)	Exception Test required	✓	×	Exception Test required	✓
	Zone 3a(ii) (50 to 100-year protection)	Exception Test required	✓	×	Exception Test required	Exception Test required
	Zone 3a(iii) (less than 50-year protection)	Exception Test required	✓	×	Exception Test required #	Exception Test required #
	Zone 3b'Functional Floodplain'	Exception Test required	✓	×	×	×

✓ Development is appropriate

× Development should not be permitted

Redevelopment only – not applicable to new build

Table 1.1: Environment Agency **Flood Risk Standing Advice for England (PPS25) Version 1.0 – May 2007** (Flood Risk Matrix)

Development category	Development (including boundary walls etc.) within 20 metres of the top of a bank of a Main River	Includes culverting or control of flow of any river or stream	Within Flood Zone 3	Within Flood Zone 2	Within Flood Zone 1
Householder development and alterations	Consult EA	Consult EA with FRA showing design details of any culvert or flow control structure proposed	No consultation - see standard comment	No consultation - see standard comment	No consultation - No EA Advice
Non-residential extensions with a footprint of less than 250m2	Consult EA	Consult EA with FRA showing design details of any culvert or flow control structure proposed	No consultation - see standard comment	No consultation - see standard comment	No consultation - No EA Advice
Change of use FROM Water Compatible TO 'Less Vulnerable' development	**Only** consult EA if site also falls within Flood Zone 3. FRA Required	No consultation - No EA Advice	Consult EA with FRA	No consultation - no EA advice	No consultation - No EA Advice
Change of use RESULTING IN 'Highly Vulnerable' or 'More Vulnerable' development	**Only** consult EA if site also falls within Flood Zone 3. FRA Required	No consultation - no EA advice	Consult EA with FRA	Consult EA with FRA	No consultation - No EA Advice
Operational development less than 1 hectare	Consult EA	Consult EA with FRA showing design details of any culvert or flow control structure proposed	Consult EA with FRA and Sequential Test Evidence (and where required confirm Exception Test has been applied)	Consult EA with FRA and Sequential Test Evidence (and where required confirm Exception Test has been applied)	No consultation - see standard comment
Operational development of 1 hectare or greater	Consult EA	Consult EA with FRA showing design details of any culvert or flow control structure proposed	Consult EA with FRA and Sequential Test Evidence (and where required confirm Exception Test has been applied)	Consult EA with FRA and Sequential Test Evidence (and where required confirm Exception Test has been applied)	Consult EA with FRA

1 Introduction

1.1 Background

1.1.1 York sits astride the confluence of the River Ouse and the River Foss, and the River Derwent forms its eastern boundary with East Riding of Yorkshire Council, as shown on **Figure 1**. These rivers drain three catchments, the Yorkshire Dales, the Howardian Hills and the North York Moors respectively. The interaction of the rivers, with the significant amount of rainfall the catchments attract, along with snowmelt in winter, makes the city particularly susceptible to flooding.

Historically, the major flood events followed rapid snowmelt in the hills. The 1982 flood, following which significant defences were built to protect vulnerable areas of the city, was calculated to have a return period of 1 in 100-years.

1.1.2 The flood in 2000 was a result of rainfall alone following a very wet autumn. It flooded 365 properties and threatened a further 5000. Subsequent modelling calculated this flood to have a return period of 1 in 80-years, and the maximum flood level was 300mm above the 1982 event.

1.1.3 This provides irrefutable evidence that climatic conditions are changing and that the probability of severe flooding is increasing. **Figure 5** shows graphically that the trend of maximum flood event levels is rising, due to factors such as increased development, improved agricultural drainage and climatic change.

1.1.4 The Environment Agency's report (March 2001), entitled "Lessons Learned: Autumn 2000 Floods" stated the following: -

> "Autumn 2000 was the wettest experienced in the UK in over 270 years. Unprecedented rainfall levels caused widespread flooding in some 700 locations across England and Wales and demonstrated the serious consequences which flooding can have for people and their property. In all some 10,000 properties were damaged with a further 37,000 properties in another 17 locations saved by sandbags alone[i]. The total bill to insurers, including the associated storm damage, was £1.3 billion (£860m domestic property and £440m for commercial property). The Deputy Prime Minister John Prescott said at the time that these events should serve as a "wake-up call".
>
> "The Department for Environment, Food and Rural Affairs (Defra) estimates that 10% of the land area of the UK is in danger of flooding. Up to 2 million homes and 185,000 businesses are at risk from flooding" .

1.1.5 The cost of the 2000 flood to City of York Council was £1.32m, with internal flooding to approximately 400 homes and businesses. Transport links were severed at Poppleton, the A19 at Rawcliffe, Tower Street, Skeldergate, Knavesmire Road, the A19 at Fulford (including Fordland's Road), Bishopthorpe, Naburn, Acaster Malbis and Elvington. The combined forces of the Army, the Environment Agency and City of York Council were required to prevent further devastation and to clear up once floodwaters had receded.

1.2 Purpose of the Assessment

1.2.1 One of the primary purposes of City of York Council's Strategic Flood Risk Assessment (SFRA) is to provide a strategic assessment of flood risk issues within the York district. This will support a risk-based approach to the allocation of sustainable development sites within Local Development Framework (LDF), and will assist planners in the assessment of future planning applications.

1.2.2 The Strategic Flood Risk Assessment has also been produced in response to PPS25 "Development and Flood Risk" which sets out the government policy on planning for flood risk and recommends that Local Planning Authorities prepare a SFRA.

1.3 Contents

1.3.1 **Section 2: Background.** This provides an overview of York's river network and identifies its broad physical characteristics. Comment is made on the key causes of flooding, along with the effects of climate change and its influence on development and flood risk. It also details the key European, National, Regional and Local policies and guidance.

1.3.2 **Section 3: Flood Risk in York.** This presents the analysis of the available information, describing the features and uses of the river network in York. It identifies the areas at risk of flooding, the existing flood defences, and highlights the key issues relating to each area.

1.3.3 **Section 4: Approach to Flood Risk.** This section makes detailed policy recommendations for Forward Planning and guidance for Development Control, in order to provide a future policy approach for the York area .

1.3.4 **Section 5: Sequential Test and Exception Test.** This section provides detailed information on the Sequential Test and the Exception Test for the York Unitary Authority Area. The guidance is split down into Forward Planning and Development Control.

Copies of this document and further information are available from:

Anna Woodall

Assistant Development Officer

City Strategy

City Development

City of York Council

9 St. Leonard's Place

York YO1 7ET

Tel: 01904 551491

Fax: 01904 551392

Email: anna.woodall@york.gov.uk

Martin Grainger

Principal Development Officer - Forward Planning

City Strategy

City Development

City of York Council

9 St. Leonard's Place

York YO1 7ET

Tel: 01904 551317

Fax: 01904 551392

Email: martin.grainger@york.gov.uk

2 Background

2.0.1 This section provides an overview of the river network in and around York and identifies its broad physical characteristics. Comment is also made on climate change and its influence on development and flood risk. The final part of this section details key European, National, Regional and Local policies/guidance. The information in this section will be used to help inform York's overall policy and guidance approach set out in Section 4.

2.1 River Network

2.1.1 The York area is drained by three Main Rivers, all running generally in a southwards direction, fed by a number of various sized tributaries. This river network is shown on **Figure 1**, and the SFRA is broken down into separate areas covering the following catchment boundaries, as shown on **Figure 6**: -

2.1.2 **River Ouse -** the largest river within York drains the Yorkshire Dales catchment and is formed from the rivers Swale, Ure and Nidd upstream of York. The river downstream of Naburn weir is tidal and the river Wharfe joins the Ouse at Kelfield just south of the York boundary. The peak measured flow in the Ouse during the Autumn 2000 flood was 583 cubic metres per second (cumecs), which is over 11 times the average summer flow of 50 cumecs. This level of flow in the river resulted in a rise of 5.4m above normal summer level. The Ouse has the following main tributaries within the York boundary: -

- Blue Beck – drains relatively flat areas of residential and commercial development in Rawcliffe and Clifton Moor north west of the city.
- Holgate Beck – drains relatively flat areas of residential development in Woodthorpe, Acomb and Holgate west of the city.
- Burdyke – drains relatively flat areas of residential and commercial development in Clifton north of the city.
- River Foss – drains relatively flat areas of residential development in Strensall, Haxby, Wigginton, and New Earswick along with large, flat areas of agricultural land in the upper catchment north of the city.
- Germany Beck – drains relatively flat areas of residential development in parts of Heslington and Fulford including the existing university campus, along with flat areas of agricultural land east of the city.

2.1.3 **River Foss -** the third largest river within York, with a peak flow of 31 cumecs and a normal summer flow of 1 cumec. It has the following main tributaries: -

- Westfield Beck – drains relatively flat areas of residential development in Haxby, Wigginton and New Earswick north of the city.
- South Beck – drains Monk's Cross Retail Park and relatively flat areas of residential development in Huntington north east of the city.
- Tang Hall Beck – drains relatively flat areas of residential development in Tang Hall and flat areas of agricultural land in the upper catchment around Stockton on Forest north east of the city.
- Osbaldwick Beck – drains relatively flat areas of residential development in Osbaldwick and flat areas of agricultural land in the upper catchment around Holtby east of the city.

2.1.4 **River Derwent -** the second largest river within York, with a peak flow of 199 cumecs and a normal summer flow of 15 cumecs. The following main tributaries drain into the river upstream of York: -

- River Rye, River Riccall, Hodge Beck, River Dove, River Seven, Costa Beck, Pickering Beck, Thornton Beck and River Hertford. Characterised by: -

    - Upper Derwent – relatively steep upland areas of the North York Moors, predominantly heather/grass moorland and commercial woodland.
    - Lower Derwent – gentler sloping area in the Vale of Pickering and Vale of York, mainly agricultural use with natural washlands subject to frequent flooding.

2.1.5 Within the York boundary, Elvington Beck at Elvington drains into the Derwent. This drains relatively flat areas of residential development and also flat areas of agricultural land to the west of the village of Elvington, including part of the former airfield which is now in commercial and leisure use.

2.2 Broad Physical Characteristics

2.2.1 York and its surrounding areas have a diverse character consisting of urban, industrial and agricultural land-uses. The Vale of York consists mainly of valuable agricultural land, with the urban and residential areas centered on the two largest settlements of York and Selby.

2.3 Topography, Geology, Soils and Hydrogeology

2.3.1 *Topography:* The Vale of York is a low-lying mainly flat landscape, though minor ridges and glacial moraines provide subtle local variations in topography. The area lies between the Pennines to the west and the North York Moors and the Wolds to the east. South of York, much of the land is less than 20m above sea level.

2.3.2 *Geology*: British Geological Survey maps show the bedrock in the area to consist of the Sherwood Sandstone group, a thick soft sandstone of Triassic age that forms the centre of the Vale of York. The superficial deposits, which overlay the sandstone, consist predominantly of sands and gravels, with some clay and till. Bands of alluvium deposits can be seen to intersect the City of York along the path of the River Ouse and River Foss.

2.3.3 *Soils*: Soil types are often a reflection of the underlying solid geology and similarly, land use is often associated with the soil. The river valleys are dominated by soils formed from glacial till, sands and gravels that are generally fertile and suitable for agriculture. A band of groundwater clay soils, which are seasonally waterlogged and affected by shallow fluctuating groundwater table, extends south easterly from Thirsk, around York to Selby.

Hydrogeology: The hydrogeology of an area is directly influenced by the characteristics of the local drift and solid geology. Different rock types may either hold or transmit water or may act as a barrier to groundwater flow. Aquifers are important for several reasons; they act as a source of good quality water for water supply and provide base flow to rivers. The underlying bedrock for the whole flood risk area is Sherwood Sandstone, a formation always classified as a Major Aquifer. The drift deposits overlying the Sherwood Sandstone are classified as a Minor Aquifer, where the drift is relatively permeable, and a Non-Aquifer, where the drift deposits are fairly thick and have low permeability.

2.4 Existing Flood Defences

2.4.1 York's flood defences were all constructed alongside vulnerable sections of the River Ouse, between Clifton Bridge and Rowntree Park to protect property in areas where major flooding has occurred in the past. These existing defences, built between 1979

and 1993, are shown on **Figure 7**. They are a mixture of earth embankments, brick or stone clad concrete walls and floodgates. Most of the defences also have flood-pump stations, to deal with sewerage and watercourse flows.

2.4.2 Of particular importance is the Foss Barrier, which effectively isolates the Foss from the Ouse, stopping water from surging back upstream in times of high Ouse levels. Water levels in the Foss are managed by a number of high volume pumps that discharge around the barrier, directly into the Ouse.

2.5 Climatic Change Influences on Flooding

2.5.1 It is becoming increasingly accepted that Global Climate Change is one of the principal challenges facing us in the 21st Century. It is also considered that the major contributory cause to global climate change is the man-made emissions of greenhouse gases, of which Carbon Dioxide (CO_2) associated with the burning of fossil fuels is by far the largest single contributor.

2.5.2 Climate change will increase flood risks in York for two reasons. Firstly, because more intense rains, especially in winter, will increase peak river flows, and secondly, because soils will tend to be wetter on average in winter.

2.5.3 The following paragraphs regarding climate change are taken from the EA's web site:-

"Current estimates are that peak river flows in Britain could be 20 percent higher by 2080. This could have important implications for the flood zones of rivers - in a review of flood defences last year, the Environment Agency found that a tenth of the population in England and Wales now lives on flood plains.

Information posted on the Meteorological Office web site reports that autumn 2000 (September to November) was the wettest autumn in England and Wales since records began in 1766. In addition the period October to December 2000 ranks as the second wettest three-month sequence for England and Wales in the last 200 years.

"The Foresight Future Flooding report was released on 22 April 2004 by the Department of Trade and Industry (DTI)… The report is the most wide-ranging analysis of flood risk in the UK. It predicts that climate change will be an important factor in increasing flood risk, and that both the number of people in danger from flooding and the costs of damage from floods will significantly rise.

It uses scenarios of potential social and economic changes, as well as information on climate change to help us understand the risks of flooding in future, and inform both public and Government bodies on what will need to be done to meet these risks."

Using a series of scenarios that take into account potential social and economic changes, as well as information on climate change, the main findings of the Foresight Future Flooding report are as follows:

! Climate change is an important factor in increasing flood risk, particularly through the impacts of rising sea levels and more stormy weather.

! Other important factors include the way we use land, increased urban development and the effects of increased wealth and higher standards of living.

! Figures for annual damage from flooding could rise from the present level of £1 billion to about £25 billion in the worst-case scenario.

! The number of people at a high risk from flooding could rise from 1.5 million to 3.7 million.

! More effective land management will help reduce the risks in most scenarios. However, in the worst-case scenario these are of little benefit and greater use of flood defences and coastal re-alignment will be required.

As a result of these findings, Foresight concludes that:

! We must all play a part in reducing the amount of carbon we are burning, and so help to slow down the rate of climate change.

! We must spend more on flood and coastal defence to protect against the impacts of climate change.

! To avoid creating a huge problem for the future, we need tougher restrictions against building on floodplains now.

! We must make any new developments resilient against flooding.

2.6 Policy Background

2.6.1 A wide range of policies at the European, National, Regional and Local levels have a significant influence on development and flood risk in the York area. This section identifies the key influencing policy factors.

2.7 European Context

2.7.1 European Spatial Development Perspective (ESDP)

European Union (EU) Ministers for Spatial Planning adopted the European Spatial Development Perspective (ESDP) at the Potsdam Council on 10 and 11 May 1999. The ESDP represents agreement on common objectives and concepts for the future development of the EU and emphasises that the aim of spatial development policies is to work towards a balanced and sustainable development of EU territory.

The ESDP emphasises the importance of achieving goals, equally in all regions of the EU. A fundamental goal of European policy relating to flooding is:

- the conservation and management of natural resources including the management of surface and groundwater, including use, flooding and drought.

This European Directive places a significant emphasis on integrating the environment into decision-making processes and on the effective management of water systems.

2.7.2 Strategic Environmental Assessment Directive

The Strategic Environmental Assessment Directive (SEA) was adopted by European Parliament on 31st May 2001 and by the Council of the European Union on 5th June 2001. However the SEA did not come into force in British law / legislation until July 2004. The purpose of the SEA Directive is to ensure that environmental consequences of certain strategic plans and programmes can be identified and assessed during their preparation and before their adoption. This will contribute to more transparent planning and help achieve the goal of sustainable development.

2.7.3 The Water Framework Directive

The Water Framework Directive was adopted by the European Parliament and the Council of the European Union on 22nd December 2000. Its objective is to establish a Community Framework for the protection of inland surface waters, transitional waters, coastal waters and ground water, in order to prevent and reduce pollution, promote sustainable water use, protect the aquatic environment, improve the status of aquatic ecosystems and mitigate the effects of floods and droughts.

2.8 National Context

2.8.1 **Planning Policy Statement 25 (PPS25) 'Development and Flood Risk'** was published in December 2006. It sets out Government Policy on planning for flood risk. This aims to reduce the risks from flooding to people, and both the built and natural environment. A web-based consultation paper, **'Development and Flood Risk: A Practice Guide Companion to PPS25 – Living Draft',** was published by the ODPM in February 2007 to provide advice on practical implementation of PPS25 policy (this can be viewed at www.communities.gov.uk/index.asp?id=1504639). The consultation period for this draft closes on 20 August 2007, and the comments will then be assessed to ensure the final version is clear, succinct, comprehensive and workable.

2.8.2 PPS25 sets out three key requirements that influence how Local Planning Authorities should deal with development and flood risk: -

- The need to **adopt a risk-based approach** to proposals for development in or affecting flood risk areas.
- The requirement to apply this risk-based approach to the preparation of development plans and development control decisions through a **sequential test.**

The need for all development plans to consider flood risk areas and for the **Environment Agency to provide advice on flood risk and flood defences**.

2.9 Risk-Based Approach

2.9.1 Historically, development has taken place in river floodplains. The advantages of flat, fertile land, which is easily developed and managed and close to transportation links have outweighed the disadvantages of intermittent flooding. Defences have been constructed to protect against flooding, however whilst flood defence works can reduce the risk of flooding it cannot eliminate it, and so the long term sustainability of this method has been brought into question. Soft engineering techniques and avoiding development in the first place in the floodplain, form key aspects of the government's approach to flood risk.

2.9.2 Potential damage from flooding is both uncertain and unpredictable. Because of this, the government considers that the objectives of sustainable development require that action through the planning system, to manage development and flood risk, should be based on the precautionary principle. The precautionary principle stated in the Rio Declaration in 1992, is particularly relevant to dealing with the hazard of flooding. It states "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost–effective measures to prevent environmental degradation".

2.10 The Sequential Test

2.10.1 A sequential risk-based approach to determining the suitability of land for development in flood risk areas is central to PPS25, and it should be applied at all levels of the planning process.

2.10.2 Paragraph 16 of PPS25 recommends that Local Planning Authorities allocating land in Local Development Documents (LDD's) should apply the Sequential Test. Its aim is to steer new development to areas at the lowest probability of flooding (Zone 1). This indicates that priority should be given to allocating sites for development in

descending order to the 'Flood Zones' set out in PPS25. These are set out in **Table 2.1.**

2.11 Exception Test

2.11.1 If the application of the Sequential Test is not possible, for the development to be located in zones of lower probability of flooding, the Exception Test can be applied. The Test provides a method of managing flood risk while still allowing necessary development to occur.

2.11.2 For the Exception Test to be passed:

a) it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk, informed by a SFRA. If the Development Plan Document (DPD) has reached the 'submission' stage – see Figure 4 of PPS12: Local Development Frameworks – the benefits of the development should contribute to the Core Strategy's Sustainability Appraisal;

b) the development should be on developable, previously-developed land or, if it is not on previously developed land, that there are no reasonable alternative sites on developable previously-developed land; and

c) a FRA must demonstrate that the development will be safe, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall. The requirements for a FRA can be found in Appendix 7.

2.11.3 The Exception Test should be applied by decision-makers only after the Sequential Test has been applied and in circumstance shown in **Table 2.1** when 'more vulnerable' development and 'essential infrastructure' cannot be located in Zones 1 or 2 and 'highly vulnerable' development cannot be located in Zone 1. It should not be used to justify 'highly vulnerable' development in Flood Zone 3a, or 'less vulnerable'; 'more vulnerable'; and 'highly vulnerable' development in Flood Zone 3b.

2.12 Brownfield Development

2.12.1 PPS25 attempts to reconcile the emphasis which Government places on development of previously developed (brownfield land) for housing, with the understanding that much of this land is located alongside rivers and vulnerable to flooding. Paragraph D14: *(PPS25: The Exception Test) states: -*

> *"Criterion b) of para. D9 reflects the Government's commitment to making the most efficient and effective use of land in line with the principles of sustainable development. Reflecting this, Planning Policy Statement 3 (PPS3): Housing sets out the Government's objectives for a flexible, responsive supply of land for housing which gives priority to the use of previously-developed land for development. However, flood risk should be taken into account in determining the suitability of the land for development.*

2.12.2 This clearly affects several large sites in York, and the implications of this are addressed in Section 4.

Table 2.1: PPS25 Flood Zones - The Sequential Test

Flood Zone	Definition	Appropriate Use	Flood Risk Assessment (FRA)Requirements	Policy Aims
Zone 1 : Low Probability	This zone comprises land assessed as having less than 1 in 1000 annual probability of river or sea flooding in any year (<0.1%)	All uses of land are appropriate in this zone	For development proposals on sites comprising one hectare or above the vulnerability to flooding from other sources as well as from river and sea flooding, and the potential to increase flood risk elsewhere through the addition of hard surfaces and the affect of new development on surface water run off, should be incorporated in a FRA. This need only be brief unless the factors above require particular attention.	In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development, and the appropriate application of sustainable drainage techniques.
Zone 2: Medium Probability	This zone comprises land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding (1%-0.1%) or between a 1 in 200 and 1 in 1000 annual probability of sea flooding (0.5%-0.1%) in any year.	The water-compatible, less vulnerable and more vulnerable uses of land and essential infrastructure in Table 4.1 are appropriate in this zone. Subject to the Sequential Test being applied, the highly vulnerable uses in Table 4.1 are only appropriate in this zone if the Exception Test is passed.	All development proposals in this zone should be accompanied by a FRA. See Annex E in PPS25 for minimum requirements.	In this zone, developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area through the layout and form of the development, and the appropriate application of sustainable drainage techniques.
Zone 3a: High Probability	This zone comprises land assessed as having between a 1 in 100 or greater annual probability of river flooding (>1%) or a 1 in 200 or greater annual probability of	The water-compatible and less vulnerable uses of land in Table 4.1 are appropriate in this zone. The highly vulnerable uses in Table 4.1 should not be permitted in this zone. The more	All development proposals in this zone should be accompanied by a FRA.	In this zone, developers and local authorities should seek opportunities to: i. reduce the overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable

Flood Zone	Definition	Appropriate Use	Flood Risk Assessment (FRA)Requirements	Policy Aims
	flooding from the sea (0.5%) in any year.	vulnerable and essential infrastructure uses in Table 4.1 should only be permitted in this zone if the Exception Test is passed. Essential infrastructure permitted in this zone should be designated and constructed to remain operational and safe for users in time of flood.		drainage techniques; ii. relocate existing development to land in zones with a lower probability of flooding; and iii. create space for flooding to occur by restoring functional floodplain and flood flow pathways and by identifying, allocating and safeguarding open space for flood storage.
Zone 3b: The Functional Floodplain	This zone comprises land where water has to flow or be stored in times of flood. SFRAs should identify this Flood Zone (land which would flood with an annual probability of 1 in 20 (5%) or greater in any year or is designed to flood in an extreme (0.1%) flood, or at another probability to be agreed between the LPA and the Environment Agency, including water conveyance routes).	Only the water-compatible uses and the essential infrastructure (listed in Table 4.1) that has to be there should be permitted in this zone. It should be designed and constructed to: – remain operational and safe for users in times of flood; – result in no net loss of floodplain storage; – not impede water flows; and – not increase flood risk elsewhere. Essential infrastructure in this zone should pass the Exception Test.	All development proposals in this zone should be accompanied by a FRA.	In this zone, developers and local authorities should seek opportunities to: i. reduce the overall level of flood risk in the area through the layout and form of the development and the appropriate application of sustainable drainage techniques; and ii. relocate existing development to land with a lower probability of flooding.

2.13 Regional Context

2.13.1 Under planning legislation, the new **Regional Spatial Strategy for Yorkshire and the Humber to 2016 based on the Selective Review of RPG12 (December 2004)** has statutory force. It highlights the need for the regional spatial pattern of development to minimise the risk of new buildings being subject to flooding, and ensure that development does not increase the likelihood of flooding.

2.13.2 Policy R2 'Development and Flood Risk' reinforces the guidance set out in PPS25 stating that development plans should adopt a sequential risk-based approach to development and flooding. A coordinated approach is also encouraged between Local Planning Authorities, The Environment Agency and other Local Planning Authorities in river catchment areas.

2.13.3 Under the Planning and Compulsory Purchase Act, new planning legislation has also been proposed for regional guidance. Therefore, the Regional Spatial Strategy for Yorkshire and the Humber to 2016, based on the Selective Review of RPG12 (December 2004), will feed into the new document called the Regional Spatial Strategy (RSS).

2.13.4 The Yorkshire and Humber Assembly have now produced the **Regional Spatial Strategy (RSS) – The Yorkshire and Humber Plan, Draft for Public Consultation (December 2005)** the comments received from this consultation will then inform the final RSS which is expected to be adopted in late 2007.

2.13.5 **Policy ENV1 'Floods and Flood Risk'** which is included in the RSS Consultation Draft (December 2005) states that the purpose of the policy is to inform development on the basis of strategic flood risk assessments and ensure flood management reflects regional spatial and economic priorities, as well as environmental objectives, thereby helping to maintain of the major conurbations and valuable communities alike.

2.13.6 The weight of undertaking a SFRA is therefore expected to increase under the new RSS policy. It is therefore very important for City of York Council to undertake a SFRA, so that we have complied with current regional policy, and with the new more stringent guidance that is expected to come into force.

Yorkshire and the Humber Regional Sustainable Development Framework

2.13.7 The Regional Sustainable Development Framework (RSDF) is the region's strategy for sustainable development and seeks to ensure that sustainable development is an integral part of policy and decision making at regional, sub-regional and local levels throughout the Yorkshire and Humber region.

2.13.8 The RSDF has 15 aims and these have been used to develop a sustainability appraisal process. This is a tool to make sure that sustainability, and in particular this region's vision for sustainability, is embedded within other strategies and action plans. These include a managed response to climate change and a bio-diverse and attractive natural environment.

A Strategic Flood Risk Assessment Regional Handbook

2.13.9 In spring 2004, the Yorkshire and Humber Assembly and the Environment Agency jointly produced a handbook called "**At Risk? Planning for Flood Risk in Yorkshire and Humber"**. The purpose of this document is to provide best practice / guidance for Local Planning Authorities in Yorkshire and Humber in relation to development and flood risk, and in particular to help them undertake SFRA's. This handbook therefore supplements the guidance on the flood risk assessments given in Planning Policy Statement 25.

2.14 Strategic and Local Planning Context

2.14.1 A specific flooding policy has been included in the "**City of York Draft Local Plan Incorporating the Fourth Set of Changes – Development Control Local Plan Approved April 2005"**. Policy GP15a 'Development and Flood Risk' seeks to clarify and amplify the management of flood risk when determining planning applications. This is shown in Appendix 5.

2.14.2 The City of York Draft Local Plan is an interim document, and will be replaced by a document known as the Local Development Framework.

2.14.3 In September 2004, the Planning and Compulsory Purchase Act introduced major changes to the planning system. The **Local Development Framework (LDF)** is a 'portfolio' of planning policy documents produced by Local Planning Authorities, to replace the Local Plan.

2.14.4 **'Planning Policy Statement 12 (PPS12): Local Development Frameworks'** is one of the new planning policies set out by the government. On pages 32-33 of PPS12, under the section Pre Production – Development of the Evidence Base, it is suggested that Flood Risk Assessments should be produced as part of the Evidence Base and the Core Strategy, to be included as part of the three year project plan known as the Local Development Scheme (LDS). It goes on to explain that Local Authorities should gather evidence about their area and should include a policy on areas at risk of flooding.

> "At the earliest stage in the preparation of a development plan document, and particularly for preparation of the core strategy, the local planning authority should gather evidence about their area. This might include studies to be undertaken or commissioned on for example areas at risk of flooding".

2.15 EA High Level Target 5 (HLT5)

2.15.1 The EA aims to reduce much of the misery, loss and damage seen in recent floods, by encouraging the correct design and location of all developments to reduce the risk of damage from flooding.

2.15.2 The EA's HLT5 annual report is a principal national source of information for monitoring and reviewing the impact of the EA's technical advice on flood risk on planning decisions made by Local Planning Authorities (LPA's). The report is produced jointly with local government for the Department for Environment, Food and Rural Affairs (Defra) and the Department for Communities and Local Government.

2.15.3 Key indicators from the HLT5 report are:

- the number of planning applications permitted by LPAs, where the outcome is known, against a sustained objection from the Environment Agency on flood risk grounds, as a percentage of the total number of applications to which the Environment Agency sustained an objection on flood risk grounds;
- the number of planning applications for major development permitted by LPAs, where the outcome is known, against a sustained objection from the Environment Agency on flood risk grounds, as a percentage of the total number of planning applications permitted against sustained Environment Agency advice on flood risk;
- the lack of a FRA or an inadequate FRA cited as the reason for an Environment Agency objection to planning applications, as a percentage of the total number of its objections on flood risk grounds; and

- the number of decision notices received from LPAs by the Environment Agency as a percentage of the number of objections the Environment Agency made to planning applications on flood risk grounds.

2.15.4 LPAs should request FRAs in accordance with Annex E in PPS 25, and they should work closely with the Environment Agency on resolving objections to development proposals and contribute positively to providing information to assist the effective monitoring of flood risk.

2.15.5 The EA is consulted by Local Planning Authorities (LPAs) on proposals for major development in the floodplain, in accordance with the guidance given in their matrix shown in **Table 1.1, Appendix 7**, and responds by giving technical advice and sometimes by recommending that planning consent should be refused outright on flooding grounds. Or they may recommend that it should be refused until the implications for flooding have been properly assessed.

2.15.5 Major development is defined in The Town and Country Planning (Flooding) (England) Direction 2007 as:

- in respect of residential development, a development where the number of dwellings to be provided is 10 or more, or the site area is 0.5 hectares or more; or
- in respect of non-residential development, a development where the new floor-space to be provided is 1,000 square metres or more, or the site area is 1 hectare or more;

2.16 EA Standing Advice: Development & Flood Risk (England)

2.16.1 Appendix 7 details the Environment Agency's Standing Advice on development and flood risk and the technical advice can be accessed on the web with the following link:

www.pipernetworking.com/floodrisk/

The appendix also contains the EA's flood risk matrix, giving development advice in all flood risk areas.

2.17 Current Environment Agency Flood Policy

2.17.1 The Environment Agency's latest (November 2005) recommendations on flooding policy were published in the Ouse Flood Risk Management Strategy, which is summarised below.

Development control

2.17.2 The EA see development control as an important aspect in the management of future flood risk, and have made the following policy recommendations:

- They will continue to develop their floodplain mapping to improve the advice given to planning authorities;
- The guidance contained in Planning Policy Statement 25 (PPS25) should be adhered to by the planning authorities, where the "precautionary principle" should be followed;
- All new developments with appropriate flood risk assessments within flood risk areas should incorporate flood resilience measures;

- Homeowners and businesses should consider fitting flood resilience measures to existing properties in flood risk areas;
- All new developments, whether in flood risk areas or not, should not increase the flood risk elsewhere. This may be through the use of Sustainable Drainage Systems (SuDS) or compensatory storage;
- Any new river crossings should not increase the flood risk. If, for example, new bridges include approach embankments or spans, provision should be made to maintain flows in the floodplain.

2.17.3 Comment was also made by the EA that "Refurbishment and redevelopment of older industrial areas brings both opportunities and constraints since many are located in areas of high flood risk. Site-specific Flood Risk Assessment is vital to the success of creating sustainable development solutions for such areas in order to maximise the social and economic benefits not at the expense of environmental concerns.

2.17.4 Local Plans for York, Selby, Hambleton, Harrogate and Boothferry all contain policies relevant to flood risk. They generally state that proposals for development within floodplains or other areas liable to flood will only be permitted where the proposal will not be at risk from flooding and/or significantly increase the risk of flooding elsewhere. Exceptionally, essential transport or utilities infrastructure, which cannot be located in a lower risk area, and which is designed to remain operational even in times of flood, will be permitted within functional floodplains."

- Normally, discharge of surface water to the watercourses should be limited to the existing green-field runoff, and currently a maximum runoff rate of 1.4 l/s/ha is quoted to developers. However it is recognised that this empirical figure may not be appropriate for all soil types and modeling carried out as part of the flood risk assessment specific to a particular development site may establish a different existing runoff from the site on which a design can be based and agreed.

2.17.5 In addition Sustainable Urban Drainage (SUDS) methods of source control and water quality improvement should be adopted and made a standard planning condition on all new developments in the catchment. It should be noted that increase flow due to climate change should be accounted for with regards to development control issues.

National policy recommendations

Broad principles

2.17.6 The new Defra initiative 'Making Space for Water' is looking to provide future policy initiatives in order to provide a more sustainable approach to flood risk management and land management on a catchment wide basis. The EA have embraced this concept within their strategy, as many of the long-term strategic options require national policy changes, which will influence people and businesses in the area. 'Making space for water' provides the mechanism for whole scale land-use changes, in order to provide a more sustainable approach to flood risk management. There is a need to build flexibility into any plan to allow for future changes, including climate change, particularly since the effects of these changes are not fully understood. The EA also recognises the need to work with natural processes rather than resist them, and this accord aligns with the EU Water Framework Directive and other policy initiatives. Finally, the EA highlighted the need to ensure that they took an integrated approach to flood risk management and environmental strategies in neighbouring catchments.

2.18 City of York Council Policy Statement on Flood and Coastal Defence

2.18.1 In 1993, the Government published a policy aim and three objectives for flood and coastal defence [1], as shown below: -

Government's policy aim: To reduce the risk to people and the developed and natural environment from flooding and coastal erosion by encouraging the provision of technically, environmentally and economically sound and sustainable defence measures.

Objective (a): To encourage the provision of adequate and cost effective flood warning systems.

Objective (b): To encourage the provision of adequate, economically, technically and environmentally sound and sustainable flood and coastal defence measures.

Objective (c): To discourage inappropriate development in areas at risk from flooding and coastal erosion.

2.18.2 To ensure a more certain delivery of the aim and objectives by the individual operating authorities, the Government published a series of high-level targets [2]. The first target requires each operating authority to publish a policy statement setting out their plans for delivering the Government's policy aim and objectives in their area. This was to include their assessment of flooding and erosion risk in their area, and the plans for managing that risk.

2.18.3 City of York Council prepared this policy statement in 2001, to fulfill these Governmental requirements. The full policy statement is shown in Appendix 4. This policy is due to be reviewed in 2006, following take-over of the Critical Ordinary Watercourses (COW's) by the EA. Similar policies have been produced by each of the IDB's for their areas.

[1] Strategy for Flood and Coastal Defence in England and Wales MAFF and Welsh Office, September 1993.

[2] High Level Targets for Flood and Coastal Defence Operating Authorities and Elaboration of the Environment Agency's Flood Defence Supervisory Duty MAFF, November 1999.

3 Flood Risk in York – Key Issues

3.1 The River and Watercourse Network

3.1.1 To enable the assessment of flood risk in York, along with the effects on present and future development, the York Unitary Authority has been divided into three areas. These areas are based upon the catchments of the major rivers passing through the City:

- The River Ouse
- The River Foss
- The River Derwent

3.1.2 **Figures 2 and 3** shows the location of these rivers passing through the City boundary, along with the extent of the upstream catchments. The areas in the Ouse and Foss catchments upstream of Naburn Lock are classed as fluvial (non-tidal), as are the areas in the Derwent catchment upstream of Barmby Barrage. Therefore this report concentrates on the Fluvial Floodplain within York.

3.1.3 **Figure 4** shows the boundaries of the six Internal Drainage Boards (IDB's) within the City Boundary, along with the areas administered by City of York Council as a drainage authority. The IDB's are long established bodies operating predominantly under the Land Drainage Act 1991 and have permissive powers to undertake work to secure drainage and water level management of their districts, and undertake flood risk management works on ordinary watercourses within their districts (i.e. watercourses other than 'main river'). The Council can exercise broadly the same powers within its drainage district. The Internal Drainage Board and Council Drainage District boundaries define smaller catchment areas within which flood risk can be assessed.

3.1.4 The City of York's drainage area has a total of 5.65km of ordinary watercourses, as detailed below: -

Watercourse	Length of open watercourse (km)	Length of culverted watercourse (km)
Tang Hall Beck	1.57	0.86
Osbaldwick Beck	1.20	0.37
South Beck	0.15	0.16
Burdyke	Nil	1.34

3.1.5 Other ordinary watercourses within the City Council boundary are the responsibility of the six Internal Drainage Boards listed below: -

Internal Drainage Board	Area (Ha) *	Total Length of adopted drains (km)*
Acaster	1,340	24
Appleton Roebuck and Copmanthorpe	1,884	31
Foss	9,085	163
Kyle and Upper Ouse	11,753	252
Marston Moor	9,708	150
Ouse and Derwent	19,801	264

* These are the total areas and lengths for the Internal Drainage Boards, all of which extend beyond the Council boundary. Therefore not all of the adopted drain lengths are in the CYC area.

3.1.6 On 1st April 2006, some watercourses were transferred to the Environment Agency, as they were categorised as Critical Ordinary Watercourses (COWs). COWs are defined as: -

"watercourses that are not classified as "main river" but which the Environment Agency and other operating authorities agree are critical because they have the potential to put at risk from flooding large numbers of people and property"

3.1.7 All of the Council's watercourses, with the exception of South Beck, have been transferred to the Environment Agency. Additionally Holgate Beck in the Marston Moor IDB area, and Blue Beck and the upstream length of Burdyke in the Kyle and Upper Ouse IDB has been transferred. As a result the Environment Agency is now responsible for the management and maintenance of these watercourses and associated structures and pumping stations.

3.1.8 The River Foss upstream of Yearsley Weir is the responsibility of the Foss Internal Drainage Board. The River Ouse, River Derwent and the River Foss between Yearsley Weir and its confluence with the River Ouse are designated as Main River and thus the responsibility of the Environment Agency. The total length of Main River in the authority's area is 45.1km plus the newly transferred COWs.

3.2 Flood Risk Zones

3.2.1 **Figure 9** shows the Flood Risk Zones for York, as defined by the Environment Agency, indicating the following 3 zones types: -

(Note: These Flood Zones refer to the probability of river and sea flooding, ignoring the presence of defences)

Flood Zone 1: Little or no risk (not coloured)
Annual probability of flooding: <0.1% (less than 1 in 1000-year risk of flooding)

Flood Zone 2: Low to medium risk (light blue)
Annual probability of flooding: 0.1-1.0% (between 1 in 100-year and 1 in 1000-year risk of flooding)

Flood Zone 3: High risk (dark blue)
Annual probability of flooding, with defences where they exist:
1.0% or greater (greater than 1 in 100-year risk of flooding)

3.2.2 The Environment Agency Flood Zone Maps do not identify the sub-division of Zone 3 into Flood Zones 3a, and 3b, although they do show areas with defences affording a 1 in 100-year flood protection level. All currently developed sites in York within Flood Zone 3 are defined as Zone 3a.

Zone 3a High risk

3.2.3 Annex G in PPS25 states the following regarding the Management of Residual Flood Risk: -

> "Following application of the Sequential Test and Exception Test (see Annex D, *PPS25*), development should not normally be permitted where flood defences, properly maintained and in combination with agreed warning and evacuation arrangements, would not provide an acceptable standard of safety taking into account climate change. Low-lying tidal and coastal areas are particularly vulnerable, due to the residual risk of defences being overtopped or breached, resulting in fast flowing and deep water flooding. Planning authorities should take these hazards fully into account when

drafting Local Development Documents (LDDs) and considering planning applications, recognising that the Environment Agency is not obliged to maintain defences. Risks will be greatest close to such defences, and local planning authorities should seek opportunities to set back developments. Planning authorities should take into account the need for access to maintain defences when considering planning applications in areas close to them."

- The EA also stated in November 2006, that when considering potential **development sites within Zone 3a, the Sequential and Exception Tests must be passed,** as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

3.2.4 In considering development within zone 3a, the EA also states that preference should be given to those sites that are already protected by a 1 in 100-year standard of flood defence. The November 2000 flood (1 in 80-year event) highlighted the fact that the only flood defences in York that currently has a 1 in 100-year standard of protection is part of flood cell B10 (Blue Beck sub-catchment – Rawcliffe), as detailed in section 3.8.1. However, this protection is only against River Ouse flooding and significant flooding could still occur in Rawcliffe due to backing-up of floodwater derived from within the Blue Beck catchment itself. Hence, **no area in York currently has a 1 in 100-year standard of flood defence**. Elvington village will have 1 in 100-year flood protection by Autumn 2007, following the completion of flood defence works.

This SFRA has identified the three sub-zones of Zone 3a on **Figure 11**, defined as follows:-

- Zone 3a(i): areas at high risk of flooding which are **currently defended** to the appropriate minimum standard as defined by PPS25 (**1 in 100-year protection**).

- Zone 3a(ii): areas at high risk of flooding which are **currently defended** to the appropriate minimum standard for existing development as defined by Defra (**50-year protection**), but are **not defended** to the appropriate minimum standard for new development as defined by PPS25 **(1 in 100-year protection).**

- Zone 3a(iii): areas at high risk of flooding which are **not currently defended** to the appropriate minimum standard as defined by Defra (**50-year protection**).

3.2.5 Reference should also be made to section 3.4, where some areas within Zone 3 have been identified as being at additional risk of rapid inundation of floodwater in the event of a failure in flood defences.

Zone 3b

3.2.6 Zone 3b areas, functional floodplains, are defined in PPS25 as "..land where water has to flow or be stored in times of flood". Specifically, this land:

- Would flood with annual probability of 1 in 25 (4%) or greater in any year, or:
- Is <u>designed</u> to flood in an extreme 1 in 100 year flood,

3.2.7 Whilst developed areas are not normally considered to in Functional Floodplains, some areas may still provide important designed flood storage or be flow routes, such as riverside car parks associated with commercial developments, which have been designed to flood.

3.2.8 All areas in Zone 3 are considered as Zone 3b (Functional Floodplain) unless shown to be in Zone 3a (High Probability) by this SFRA or a site specific FRA. Built development in Zone 3b areas would be wholly exceptional.

3.3 City of York Council's Emergency Planning – Flood Risk

3.3.1 The provision of flood warning systems is primarily the responsibility of the Environment Agency. Their flood warning dissemination plan assesses the predicted risks to the City from rising river levels. Appropriate warnings are issued, including individual warnings to high-risk properties.

3.3.2 City of York Council recognises its related and important role in emergency planning and response, and will therefore:

- Ensure that its emergency response plans include appropriate arrangements for flooding emergencies and that such plans are reviewed, in consultation with the Environment Agency, at least every two years;
- Maintain an awareness of the Environment Agency's flood warning dissemination plan for its area and contribute to its implementation as necessary; and
- Play an agreed role in any flood warning emergency exercises organised by the Environment Agency covering its area.

3.3.3 City of York Council has included plans for responding to both major and minor flooding in its Emergency Planning Procedures and has arrangements for cascading warnings received from the Environment Agency to relevant Council services.

3.3.4 As part of the Exceptions Test, developers intending to build within Flood Risk Zones 2 or 3 should consult the Council's emergency planning officers at an early stage. Information regarding existing emergency procedures can be provided and advice given on the suitability of any proposed additions/amendments.

3.4 Rapid Inundation Zones (RIZ)

3.4.1 The response of the River Ouse to heavy rainfall is relatively slow, taking a day to a day and a half to reach York from the upper catchment. Zone 3(iii) areas (not defended to 1 in 50) are therefore not at risk from flash flooding. However, protected areas in Zone 3(i) and Zone 3(ii) are at risk from rapid inundation of floodwater if a failure in the defences were to occur.

3.4.2 Where detailed flood levels and topographic data were available, depth of flooding likely from the 1 in 100-year event has been shown. This provides an indication of the flood risk within Zone 3, and allows for the calculation of rapid inundation zones where the combination of depth and velocity could lead to a **potential loss of life**.

3.4.3 The RIZ were identified by carrying out an analysis within each protected flood cell, assessing an area approximately 500m behind the defences. Where the current ground elevation was within 300mm of the peak 1 in 100-year defence design water level, this was removed from the rapid inundation zone, as it is likely that simple mitigation measures would reduce the risk to an appropriate level.

3.4.4 In addition, areas of low-lying topography where breach water would flow and flood the area to a significant depth (greater than 0.6 m) were included in the screening of the high flood risk in Zone 3.

3.4.5 The following graphics from Report FD2320/TR2 (R&D OUTPUTS: FRA GUIDANCE FOR NEW DEVELOPMENT: PHASE 2) by HR Wallingford (2005), further illustrate the hazards in a Rapid Inundation Zone during breach scenarios.

Table 3.1: Relation ship between Flood Hazard and Distance Away from a Flood Defence assuming a Defence Breach (HR Wallingford, 2005)

Distance from defence (m)	Head above crest level (m)			
	0.5	1	2	3
100				
250				
500				
1000				
1500				
2000				
2500				
3000				
3500				
4000				
4500				
5000				

- This table has been generated for a breach of 100 metres wide, breaching onto a flat floodplain. There may be greater spatial variation for different sized breaches, and uncertainty is expected to be relatively large.
- Hazard to people increases as the head of water against the defence increases.
- For small defences (say 2m high or less) the zone of high hazard only extends for the first few hundred metres if the defence is breached.

Table 3.2: Danger to People – relationship between Flood Depth and Flood Velocity assuming a Defence Breach (HR Walling ford, 2005)

Velocity (m/s)	Depth of flooding (m)											
	0.05	0.10	0.20	0.30	0.40	0.50	0.60	0.80	1.00	1.50	2.00	2.50
0.00												
0.10												
0.25												
0.50												
1.00												
1.50												
2.00												
2.50												
3.00												
3.50												
4.00												
4.50												
5.00												

3.4.6 The following provides a very simplified guide as to the groups of people that should be considered as falling into these danger classifications:

- Danger for some – includes children, the elderly and the infirm.
- Danger for most – includes the general public
- Danger for all – includes emergency services

3.4.7 The outputs of the Flood Risk to People project indicate that flood depths below 0.25m and velocities below 0.5 m/s are generally considered low hazard. When designing safe access and exit routes, the combinations of depth and velocity on the routes should correspond to the white boxes in the above diagram. As flood depth and/or velocity increase, the hazard to people increases. Combinations of depths and velocities in the white boxes (below the 'danger for some' class) are 'very low hazard', but a hazard does remain.

Figure 12: Plan view of Danger to People from Breach Scenario

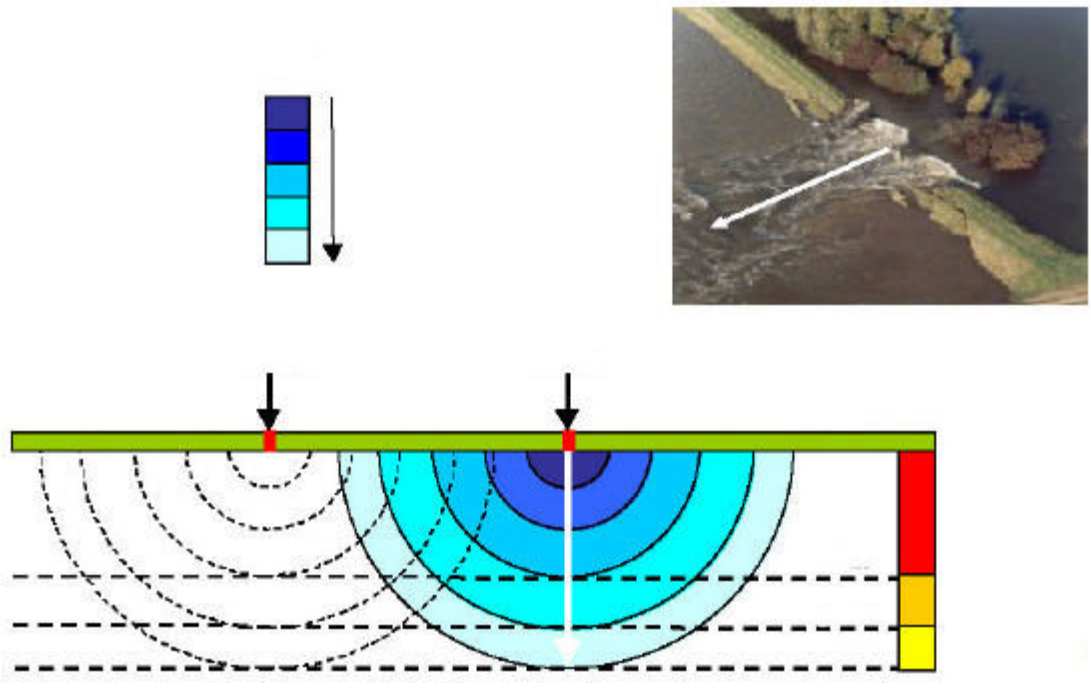
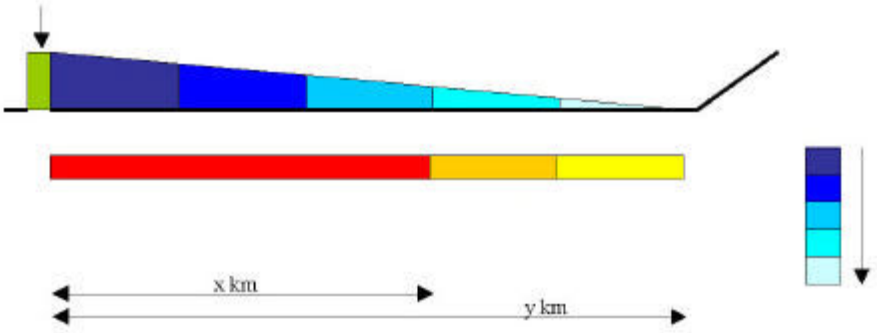


Figure 13: Section View of Danger to People from Breach Scenario



Notes on use of Flood Depth Mapping and Rapid Inundation Zones:

3.4.8 Using this simple approach from the Wallingford report, it can be seen that the danger to people decreases as the distance from the defence increases. A more detailed analysis would identify areas where the hazard would be lower, for example due to localised high ground.

3.4.9 These "danger to people" classifications should be considered as fairly subjective and should not be used as the decision-making mechanism to refuse development, especially as measures identified in a FRA to mitigate residual risk could reduce risk to acceptable levels. The classifications are most suitably applied to the identification of the least risk areas within the area being considered in order to apply a sequential approach to allocating land for development and for determining suitable types of development.

3.4.10 In summary, the risk from rapid inundation can be categorised as follows: -

- **High Risk –** land **within 500m** of existing flood defences and at least **600mm below** the 1 in 100-year (1%) predicted flood level, posing a threat to human life, or land which lies **beyond 500m** from the existing flood defences and which is **more than 1000mm below** the predicted 1 in 100-year (1%) flood level.

- **Medium Risk** - Land in Zone 3, which is **within 500m** of the existing flood defences and which is **less than 600mm below** the 1 in 100-year (1%) predicted flood level. In the event of a breach, flood depth and flow velocities would be comparatively low;

- The land within Zone 3, which lies **beyond 500m** from the existing flood defences and which is **less than 1000mm below** the predicted 1 in 100-year (1%) flood level, where flooding would not pose a threat to human life, i.e. the higher ground, unlikely to be in the rapid inundation zone;

3.4.11 In general, this suggests that development should be avoided within the first few hundred metres of the defence because there is a risk to all people exposed to floodwater. The distance depends on the head of water above the floodplain. In addition, the velocities in this zone will be relatively high and therefore there is a clear risk of damage to property.

3.5 Flood Depth Mapping

The River Ouse

3.5.1 Extensive historic flooding records exist for the River Ouse in York, dating back to 1263 A.D, over 742 years. The most recent and biggest flood in autumn 2000 was assessed by the EA using computer modelling as having an 80-year return period. This is approximately only 100mm lower than the predicted 1 in 100-year flood. The aerial photographic records taken within hours of this flood peak, supplemented by subsequent levelling surveys, allows Zone 3 (1 in 100-year) to be predicted with a high degree of confidence.

The River Foss

3.5.2 Because the river Foss did not flood in 2000, the best guidance for the Zone 3 outline is the 1982 flood. Council records are good for this within the old city council boundary. However, lack of flooding records in some of the former Ryedale District areas north of Bell Farm has led to large areas being covered by modelled predictions of Zone 2 and 3 flooding. The Environment Agency acknowledge this modelling to be indicative and continue to review their flood risk mapping using more sophisticated modelling with the aim of refining the zone boundaries. To date this has been achieved for the Huntington, New Earswick, Earswick and Strensall areas, but is still outstanding for Haxby and Wigginton.

The River Derwent

3.5.3 River Derwent predictions are a little less certain, as historic records are not quite as extensive, and the worst flood to date (November 2000) has a calculated return period of 50-years. However, the extent of flooding in 2000 is well documented, with aerial photographic records taken within hours of the flood peak, providing reasonable calibration of the 1 in 100-year flood prediction.

Other supporting information

3.5.4 The Environment Agency has carried out flood risk studies under Section 105(2) of the Water Resources Act 1991 & 1995 of some watercourses to improve understanding of flood risk. The outline (Phase One) studies quantify the flood risks and make recommendations on whether further investigation is necessary. If this is the case, detailed (Phase Two) studies are carried out, including hydraulic modelling. Those covered to date are: -

River Ouse catchment

- **Burdyke (Phase 2: Detailed), Atkins-2003,** from 120m upstream of the Sutton Way culvert to the Burdyke Pumping Station at the confluence with the River Ouse.
- **Holgate Beck / Chaloner's Whin (Phase 1: Outline), Atkins-2003,** lengths classed as critical Ordinary Watercourses.
- **Blue Beck (Phase 1: Outline), Atkins-2001**

River Foss catchment

- **River Foss (Phase 2: Detailed), JBA-2003,** from Lock House Weir, Earswick to the confluence with the River Ouse.
- **Haxby Beck (Phase 1: Outline), JBA-2003**

- **Tang Hall Beck (Phase 1: Outline), JBA-2003,** from Cow Moor Bridge (Stockton Lane) to the confluence with the River Foss.
- **Osbaldwick Beck (Phase 1: Outline), JBA-2003,** from the A64 road bridge to the confluence with Tang Hall Beck.

River Derwent catchment

- **Elvington Beck (Phase 1: Outline), JBA-2000,** from the beck head to its confluence with the River Derwent.

Other studies

- Arup carried out a further flood study, commissioned by the Environment Agency in 2001, to investigate the November 2000 flood event that affected the **Blue Beck Catchment, Rawcliffe**.
- Arup carried out a study, commissioned by CYC, into the capacity of Burdyke pumping station following operational and reliability problems during the 2000 flood.

3.5.5 It can be seen that these are all watercourses that have been designated as COWs and responsibility for their management and maintenance has now been transferred to the Environment Agency.

3.6 Climatic Change Influences on Flooding

3.6.1 Defra has adopted a precautionary approach to increased flood risk due to climate change. They recommend that sensitivity analysis of river flood alleviation schemes should take account of potential increases of up to 20% in peak flows over the next 50 years. For some larger rivers the impact of such an increase might involve a shift from a 1 in 100-year event to a 1000-year event, depending on the slope of the relevant flood frequency curve(s).

3.6.2 Flood frequency curves are derived from observed historical flood records. Peak flow magnitudes, and how often they occur, are graphically plotted against each other to produce a curve of best fit through this data. Locations with shallow flood frequency curves would indicate that a change from a 1 in 100-year event to a 1 in 1000-year event would have a greater effect on peak flow magnitudes than locations with steeper curves. Such areas are characterized as flat land adjacent to floodplains, where increases in depth of flooding can spread more easily than steep sided valleys.

3.6.3 The sensitivity analysis would establish whether the proposed scheme could be effective against the effects of climate change and maintain the desired protection against flooding for the design period. The effect of climate change is likely to vary between catchments and the sensitivity analysis would take into account how the physical characteristics affect its reaction to different flood flows.

3.7 Freeboard Allowance

3.7.1 Freeboard is generally understood as being the difference in level between the built crest of a flood defence and the design flood level. This is incorporated to allow for uncertainties in the design, construction and operation procedures. **"R&D Technical Report W187: Fluvial Freeboard Guidance Note",** produced by the EA in 2000, provides a consistent technical approach to the calculation of freeboard allowances using risk analysis, which is complex and will vary at different locations. Factors taken into account include:

- Climate change, wave action, defence settlement / erosion, modeling and frequency analysis uncertainty, consequences of overtopping

3.7.2 Previous "rules of thumb", for 1 in 100-year protection, added allowances of 450mm to flood defences and 600mm to property thresholds. The Environment Agency continues to recommend that finished floor levels of habitable buildings should be a minimum of 600mm above the 1 in 100-year level.

3.8 River Ouse

General

- The Yorkshire Dales and eastern slopes of Pennines form the Ouse catchment upstream of York, a total of 3,500 square kilometres, as shown on **Figure 2**. The River Ouse is fed mainly by the rivers Swale, Ure, Nidd and Foss. The catchment is predominantly rural, with population and industry concentrated in the built-up areas of Richmond, Northallerton, Thirsk, Ripon, Harrogate and York. Rain and snowmelt on the high ground results in rises in river level in York and in 2000 it rose to 5.4m above normal.
- As detailed in Section 2, the main tributaries within York (starting upstream) are:
    - Blue Beck.
    - Holgate Beck
    - Burdyke.
    - River Foss, with the following tributaries (see Foss Zone for further description)
        - Westfield Beck
        - South Beck
        - Tang Hall Beck
        - Osbaldwick Beck
    - Germany Beck.
- The River Ouse level is controlled at Naburn Lock and weir, downstream of which it becomes tidal.
- The long-term average annual rainfall over the River Ouse catchment is 899mm.
- The mean summer river level is 5.00m Above Ordnance Datum (AOD) measured at North Street.
- The normal summer flow is 50 cumecs.
- Large parts of the City Centre and surrounding area, straddling the River Ouse, are designated as Areas of Archaeological Importance, as shown on **Figure 10: Local Plan Map Extracts.**

Environmental Features

- The River Ouse is an important water resource, having many uses including, but not limited to, public water supply, irrigation, industry, angling and other recreation activities. Some water is exported from the catchment to West and South Yorkshire for public water supply. In York, recreation dramatically increases, with mooring points for motorised pleasure craft, marinas, and a number of rowing and canoeing clubs. Small, hired motorboats also use the river through York, along with a number of passenger cruise lines.
- The Ouse Navigation Authority is British Waterways.

- The River Ouse supports large numbers of coarse fish of many different species and also provides the corridor for salmon entering the catchment, making it popular with anglers. Water quality improvements have been made in the past five years and these have encouraged the presence of UK Biodiversity Action Plan species such as lampreys and salmon. The biological water quality of the non-tidal River Ouse in 2000 was classified as excellent to good. The invertebrate community is characterized by a diverse range of caddis-flies and molluscs, such as river snails, swan mussels and populations of depressed river mussels.

- There are numerous important sites of environmental interest along the Ouse and its tributaries, including Sites of Special Scientific Interest (SSSI) at:
    - Acaster South Ings, Askham Bog, Church Ings, Fulford Ings, Heslington Tilmire and Naburn Marsh. Askham Bog has been identified as being of national importance; see **Figure 10: Local Plan Map Extracts**.
- Water vole, otters and bats are present within the catchment and the only confirmed British population of the rare Tansy Beetle (downstream of Rowntree Park).

Floodplain Characteristics - Past Flood Events

- Severe floods occurred in 1947, 1978, 1982 and 2000.
- Records of flooding in York go as far back as 1263 A.D.
- A maximum flow of 583 cumecs was recorded in 2000, over 11 times the normal average summer flow.
- A maximum flood level in November 2000 of 10.40m AOD was recorded at the Viking Recorder, North Street. All Ouse flood warnings quote the level at this location.
- The 2000 flood left the A19 at Fulford impassable for 9 days and affected many other major and minor roads. 400 properties were affected by flooding and a further 5000 threatened.
- The 2000 flood peaked at just 50mm below the crest level of the defences.

Flood Defences

3.8.1 Large sections of York are protected by numerous River Ouse flood defence schemes which offer the standards of protection detailed in **Table 3.3**: **York Flood Defences – Standards of Protection.**

3.8.2 These defence levels vary through the city, due to the natural gradient of the river compounded by the backing-up effect caused by the narrower river channel and constrictions to flow at the numerous bridges through the city. The nominal flood defence level at North Street (Viking Recorder) is 10.48m AOD. **Figure 7** shows the Flood Defences and their protection levels through the city.

3.8.3 These existing defences, built between 1979 and 1993, are at Clifton / Rawcliffe Ings, Acomb Landing, Holgate Beck, Leeman Road, Lower Bootham (Phases 1 & 2), North Street, Foss Barrier and Lower Ebor Street. The defences are a mixture of earth embankments, brick or stone clad concrete walls and gates. All defences, apart from Clifton Ings, have flood pump stations associated with them, to deal with foul and surface water flows from the 'dry-side' of the catchments. Flood defences help to reduce the risk of flooding. However, they do not provide complete protection. Flooding can occur when an event is large enough to generate water levels higher than the defences or if the defence fails during a flood. The degree to which existing walls and embankments protect areas from flooding is known as the 'standard of protection'.

3.8.4 '**Standard of protection**' is the probability of the flood event that the defence was designed to protect against. However, an event that results in a higher water level than the design flood event level would not necessarily overtop the defence. This is because the height of a defence includes an allowance for additional factors such as wave action, modeling uncertainties and global warming.

3.8.5 A further term used to describe the level of service a defence provides is **'Onset of flooding'**. Like 'standard of protection', this defines the probability of a flood event. However, in this case, it is when we think a defence is likely to be at risk of overtopping and some flooding is likely to occur. For this reason, the water level that causes the onset of flooding has a lower probability (i.e. it is less likely to occur) than the water level used to calculate standard of protection. **Table 3.6** from the EA's Strategy Report summarises the current standard of protection and onset of flooding for the existing defences. **Table 3.6** also shows those properties that are at risk of flooding from a 1 percent (1 in 100-year) event. Although properties may be defended to this standard or higher, they are still at risk of flooding, as the defences may for example breach.

3.8.6 Clifton Ings is a natural floodplain upstream of York. In 1982, the existing embankments were raised and new ones constructed to increase the volume of storage to 2.3 million m^3. Sluice gates, which allow floodwaters in and out of the Ings, were also constructed. Clifton Ings reduces levels in York by approximately 100mm for flows of 400 cumecs (equivalent to something greater than a 25% (1 in 4-year flood event). However, its effect reduces as flows increase, with the washland having no significant effect on levels in York for flows greater than approximately 550 cumecs (a 2.5% or 1 in 40-year flood event). For comparison, the peak flow during the November 2000 event was 583 cumecs, and in 1982 it was 541 cumecs.

3.8.7 Of all the areas within Zone 3 in York, only part of flood cell B10 (Blue Beck sub-catchment - Rawcliffe) is shown on the EA's maps to be defended against a 1 in 100-year River Ouse flood event. The Rawcliffe defences were upgraded by the EA following the 2000 flood, by extending an embankment to reduce the risk of outflanking (flow of floodwater through low spots at the ends of defences). However, the review of the November 2000 flood by Arup's concluded that significant flooding would still occur due to backing-up of floodwater derived from within the Blue Beck catchment itself.

3.8.8 Additionally, the EA's model of the upper Ouse catchment suggests that if peak runoff increases by 20 percent, an approximately corresponding increase would in be passed down the catchment to the study area. For example, a 20 percent increase in peak flows at Skelton Gauging Station, which is just upstream of York, would increase peak levels in York by between 400 to 560mm. **Table 3.3** shows how such an increase may drastically affect the standard of protection provided by some of the existing defences.

Flood Risk Areas

3.8.9 **Figure 9,** the **Environment Agency Flood Zone Map**, shows the areas that are at greatest risk of property flooding from 1 in 100-year and 1 in 1000-year events in the River Ouse catchment, along with flooding from its main tributaries. The areas affected by flood risk are discussed in detail below.

3.8.1 Holgate Beck

3.8.1.1 Flooding occurred in this sub-catchment (ref. B3 and B6) in 1947, 1978 and 1982 as a result of backflow from the River Ouse. The 1947 flood saw 217 houses in the Hamilton Drive area, located 2km from the river Ouse, affected by floodwaters.

3.8.1.2 Following the 1982 flood, Holgate Pumping Station was constructed by the Marston Moor IDB, which along with the associated flood bank, has kept the area free from flooding to date. The November 2000 flood came within 50mm of overtopping the City's defences, but there was no flooding directly linked to Holgate Beck. However, there is a high risk of flooding if the pumping station fails or the West End / Leeman Road Embankments are over-topped / breached, with resultant rapid inundation from the river. The flood defences do not give 1 in 100-year protection.

3.8.1.3 Following enmainment as a COW in April 2006, the pumping station is now the responsibility of the EA. A Section 105 (Phase 2: Detailed) study is to be carried out by the Environment Agency to provide a more detailed assessment of flood risk issues.

Section 4 details the constraints that should be placed on future development in this area.

3.8.2 Blue Beck - Rawcliffe

3.8.2.1 Flows from Clifton Industrial Estate and housing area are managed by Rawcliffe Lake, a flow balancing lake maintained by Yorkshire Water, as shown on **Figure 14a** Restricted flows discharge from the lake, to join flows from the rest of the catchment, which then normally flows unrestricted under Rawcliffe flood bank to discharge into the Ouse. During high River Ouse floods, backflow into Rawcliffe is prevented by the closure of a penstock in the earth flood-bank. From this point onwards, Blue Beck has no outfall and Rawcliffe Storage Lagoon located immediately behind the flood bank comes into operation. The combination of the two storage structures was designed to balance and store the flows from the catchment, but as a precautionary measure the EA positions temporary pumps on the embankment to ensure that sufficient capacity is maintained in the storage lagoon to accommodate flows from the beck catchment.

3.8.2.2 November 2000 saw 120 properties in Rawcliffe (ref B10) affected by flooding, primarily as a result of outflanking of the flood defences by the River Ouse. i.e. the floodwater inundated the area via a low point in the defences. The review of the flood in 2001, by Arup on behalf of the EA, concluded that significant flooding would still occur in Rawcliffe due to backing-up of floodwater derived from within the Blue Beck catchment itself. The system was assessed to only give protection against a 25-year flood event.

3.8.2.3 Following the investigation in 2001, the Rawcliffe defences were subsequently upgraded by the EA to give 1 in 100-year protection against River Ouse flooding, consisting of the following: -

- A new section of flood bank was constructed to prevent outflanking of the defences.
- Low spots in the defences were raised.
- An emergency trackway was laid to enable temporary pumping to be brought deployed.
- Telemetry was installed to monitor water levels.
- The flood procedure was amended.

3.8.2.4 However, since the problem of insufficient storage persists, future development should be constrained as detailed in Section 4.

3.8.3 Bur Dyke

3.8.3.1 Flooding occurred in this sub-catchment (ref. B11) in 1947, 1978 and 1982 as a result of backflow from the River Ouse, the area affected being centred on Clifton Green, some 1km from the river Ouse. Following the 1982 flood, Bur Dyke Pumping Station was constructed by York City Council which, along with the associated earth flood-bank built as part of the Lower Bootham Phase 1 defences, has kept the area relatively free from flooding to date, with no property flooding recorded. However, during the November 2000 flood, the flood pump failed and fire engines and other pumps were brought in to carry out emergency pumping. The flood bank also came close to being overtopped. An amount of flooding occurred behind the flood-bank due to the pump failure, but no properties were affected.

3.8.3.2 A Section 105 (Phase 2: Detailed) study of Bur Dyke was carried out by Atkins in 2003, prior to enmainment by the Environment Agency in April 2006. The report concluded that, although the culvert itself it not under-capacity, the flood pump is should be upgraded at some time in the future. The station has no standby pump in case of failure.

3.8.3.3 Also following the 2000 flood, CYC commissioned a report from Arup to look into the feasibility of improving the pumping station. This did not result in an upgrade, as the scheme did not qualify for Defra grant aid. The pumping station is now the responsibility of the EA.

3.8.3.4 The flood defences do not give 1 in 100-year protection and there remains a moderate risk of flooding if the pumping station fails or the earth flood-banks are over-topped / breached, which could affect 543 properties in the Clifton Green / Water Lane / Longfield Terrace areas.

Consequently, future development in this area should be constrained, as detailed in Section 4.

3.8.4 Marygate Area (B12) and North Street (B4)

3.8.4.1 These areas suffered direct flooding from the River Ouse in 1947, 1978 and 1982.

Following the 1982 flood, the Marygate area was protected by the construction of the Lower Bootham Phase 2 flood defences. These consist of brick-clad concrete walls, floodgates and a pumping station.

3.8.4.2 The North Street area was protected by the construction of the North Street flood defence scheme in 1993, again with brick-clad concrete walls, floodgates and a pumping station.

3.8.4.3 However, the November 2000 flood came within 50mm of overtopping both sets of defences and a high risk of flooding remains, should the floodwalls fail. Both sets of flood defences do not give 1 in 100-year protection and are classed as high-risk, rapid inundation zones, with significant flood depth exceeding 0.6m. Consequently, future development in these areas should be constrained, as detailed in Section 4.

3.8.5 Skeldergate and Queens Staith (B7), Kings Staith and South Esplanade (B15) and New Walk (B16)

3.8.5.1 These areas suffered direct flooding from the River Ouse during the major floods in 1947, 1978, 1982 and 2000. No flood defences currently exists for these areas. Consequently, numerous properties suffer from flooding when river levels exceed 8.2m AOD (3.2m depth of flood). Any re-development should consider recommendation in Section 4.

Table 3.3 York Flood Defences – Standards of protection

Defence Location	Nominal Defence Level (mAOD)	Onset of Flooding	Current standard of protection	Estimated standard of protection with 20% increase in peak flows
Rawcliffe Ings / Clifton Park	11.10	2% (1 in 50)	4% (1 in 25)	20% (1 in 5)
Leeman Road	10.94	2% (1 in 50)	4% (1 in 25)	20% (1 in 5)
Lower Bootham Phase 1: (Queen Anne School)	10.62	4% (1 in 25)	10% (1 in 10)	>20 % (<1 in 5)
Lower Bootham Phase 2: (Almery Terrace)	10.62	4% (1 in 25)	4% (1 in 25)	>20 % (<1 in 5)
Lower Bootham Phase 2: (Marygate)	10.61	2% (1 in 25)	4% (1 in 25)	20 % (1 in 5)
Museum Gardens	10.39	2% (1 in 25)	4% (1 in 25)	20 % (1 in 5)
North Street	10.48	2% (1 in 50)	4% (1 in 25)	20% (1 in 5)
Foss Barrier	10.30	1% (1 in 100)	2% (1 in 50)	10 % (1 in 10)
Lower Ebor Street	10.20	4% (1 in 25)	10% (1 in 10)	>20% (< 1 in 5)

3.8.6 Environment Agency Policy on Future Development behind Flood Defences in York

3.8.6.1 In 2003, the Environment Agency commented that: -

> 1) "PPG25 (now PPS25) states the appropriate standard of a defence for new development should provide protection against a 1 in 100-year flood for the lifetime of the development: the defences in the York area no longer offer this level of protection".
>
> 2) "With this in mind, the Agency is likely to object to development proposals behind the defences and within the historic flood outline, as we do not wish to see an increase in the number of people introduced into the floodplain and put at risk of flooding. In accordance with PPG25 (now PPS25), all development proposals require an assessment of flood risk to be carried out. If having, carried out the sequential approach, your council support further development in these areas, all applications for new development must be supported by a Flood Risk Assessment confirming that the minimum appropriate standard of protection will be met and how this will be achieved."

3.8.6.2 The Ouse Flood Risk Management Strategy Report (2006) detailed below reinforces this, and maintains that the "precautionary principle" in PPS25 should be followed. However, redevelopment of older industrial areas (brownfield) within Zone 3 will only be allowable if they pass both the Sequential and Exception Tests as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

3.8.6 EA's Future Flood Defence Strategy

Introduction

3.8.7.1 The Ouse Flood Risk Management Strategy report was published by the EA in November 2005, following a lengthy period of consultation with interested parties. The Strategy sets out their plan for the sustainable management of flood risk to people, property and the environment over the next 100 years. The study area examined the full length of the River Ouse catchment, from Linton Lock to Boothferry Bridge. The following sections summarise selected parts of the report, relative to the City of York Council's area. For the purposes of identifying and assessing flood risk, the study area was divided into eight separate sections or 'reaches'. These take into account such things as land use and natural boundaries. The reaches are listed in **Table 3.4,** together with a brief description of the characteristics that define them. The reaches are further sub-divided into distinct flood cells as shown on **Figure 8.**

Options

3.8.7.2 In developing this strategy, the EA assessed a large number of generic flood risk management options, taking into account the existing environmental and technical constraints. A short-list of options was considered in more detail, including both strategic options, as well as more local improvements. Each option was assessed against the following criteria:

- Technical feasibility: Mathematical models of the River Ouse and its main tributaries allowed an assessment of how effective an option would be at reducing flood risk. Construction difficulties/techniques and the identification of any wider impacts were assessed during site visits;
- Environmental impact: A Strategic Environmental Assessment of the options was carried out, allowing for the identification of their potential environmental effects, constraints and opportunities for environmental improvement;

- Economic viability: The benefit-cost ratio of each option was analysed to allow identification of options that were economically viable.

3.8.7.3 Having carried out the above assessment, each viable option's DEFRA priority score was calculated, which determined the likelihood of a scheme being promoted.

The study indicated that there were a number of economically viable options that could provide a uniform standard of protection to the whole study area; these are listed below:

- new on-line storage, upstream of the study area;
- improve off-line storage at Clifton Ings;
- optimise off-line storage / out of channel flow at Cawood-Wistow Lordship and Kelfield Ings;
- raise/provide new defences throughout the study area.

3.8.7.4 The first three would require defences in some locations, to provide a consistent standard throughout. However, all the options had low priority scores and were unlikely to be promoted within the next five years. There is also a need to study the storage options in more detail to confirm their viability. A number of stand-alone improvements to the defences are cost beneficial. Some of these have high priority scores, whereas others are unlikely to be promoted. These are highlighted in the EA's preferred plan below.

Preferred plan

Flood risk management measures short and long term

3.8.7.5 The following flood risk management measures are detailed within the EA's action plan, for implementation within the first five years of the strategy. Prior to implementation, a full detailed appraisal of these options will be required, as the strategy only provides a broad-brush assessment.

Existing flood risk management measures

3.8.7.6 The EA are to continue with existing measures where justifiable, maintaining the existing defences to protect homes and businesses and continuing to operate pumping stations and floodgates and will carry on with flood forecasting activities and provide flood warnings.

Local defences – short term (York)

3.8.7.7 There was one area in York where the priority scores were high and it would be possible to increase the existing standard of protection (currently 10% or I in 10-year) in the next five years. This was the **Water End / Leeman Road** area, where the following is proposed: –

- 205m of new embankment along Water End;
- Installing a 90m long sheet pile cut-off wall to prevent seepage under Water End;
- Replacing (rather than raising) the existing Leeman Road embankment, due to its current poor condition.

Local defences – long term (York)

3.8.7.8 Improvements may be viable in the following areas, although their priority scores are low and would not receive funding until after 2010:

- The War Memorial Gardens / North Street
- Clementhorpe (Lower Ebor Street)
- Foss flooding from the Ouse including South Esplanade
- Fulford.

3.8.7.9 Several others local schemes have positive benefit/cost ratios but very low priority scores. There is a possibility that some of the following schemes could be promoted in the longer term (2015 onwards), although this is unlikely:

- Knavesmire
- Queen Anne School (Lower Bootham Phase 2)
- Marygate and Museum Gardens (Lower Bootham Phase 1)
- New Walk

Improvements in other areas are unlikely to be economically viable.

Further studies into long-term strategic options

3.8.7.10 The implementation of the long-term strategic options is dependant on further studies, as much of the information required to justify them does not exist at present. However, these options are the solutions that will provide a long-term sustainable solution to the reduction of flood risk within the catchment. In addition, these options could provide opportunities for significant environmental and recreational enhancements of the catchment. Although these options are not planned for implementation on the ground within the next five years, the EA have included costs for undertaking further studies within the first five years of the strategy.

3.8.7.11 The following long-term strategic studies affecting York were recommended by the EA for future consideration:

- Modifications to Clifton Ings;
- Managed realignment of the defences in the Upper Swale;
- Operation of existing reservoirs, which we will discuss with water companies;
- More detailed study of the minor watercourses, including the River Foss (and its tributaries) and Holgate Beck (which is linked to proposed improvements to the defences);
- Changes in land management;
- Assessment of flood and river bank protection requirements.

Action Plan

3.8.7.12 The effects of the elements of the EA's preferred plan on flood risk are identified in **Table 3.5.**

Strategy review

3.8.7.13 The findings of the EA's strategy will be reviewed every five years to take account of changes in flood risk, national policy, funding mechanisms and environmental issues.

Environment Agency Policy on Future Development behind Flood Defences in York

3.8.7.14 In 2003, the Environment Agency commented that: -

> "PPG25 (now PPS25) states the appropriate standard of a defence for new development should provide protection against a 1 in 100 year flood for the lifetime of the development: the defences in the York area no longer offer this level of protection".

3.8.7.15 Consequently, the EA have placed constraints on development in high-risk Zone 3 areas within the historic flood outline to control any increase in the number of people introduced into the floodplain and put at risk of flooding. These are detailed in Section 4.

Table 3.4: Ouse Study Reaches (EA Strategy Report)

Table 2.1 – Study reaches

Reach	Limits	Characteristics
A	River Ouse between Linton Weir and the A1237 York northern ring road	• Primarily agricultural land (grade 3) • Area has a number of designated environmental constraints including SAMs, replanted historic woodland and a historic park (Beningbrough)
B	River Ouse from the A1237 York northern ring road to the A64 York bypass, including the Foss	• Urban area of York • High number of environmental constraints, primarily heritage and archaeological • Complex infrastructure, including regional and national rail links • River is mainly channelled, non-tidal • Areas of biodiversity interest include Clifton Ings (a controlled washland) and Fulford Ings (a SSSI)
C	River Ouse from the A64 York bypass to Naburn Weir	• Non-tidal • Mixed land use, including agricultural land (grades 2 and 3), small towns and villages • The main areas of designated environmental interest are SSSIs at Naburn Marsh and Church Ings
D	River Ouse from Naburn Weir to Ouse/Wharfe confluence	• Tidal reach passes through predominantly agricultural land (grades 2 and 3) • SSSI at Acaster South Ings

Table 3.5: Table S2 – How will the Ouse Flood Risk Management Strategy affect me? (EA Strategy Report)

Table S2 – How will the Ouse Flood Risk Management Strategy affect me?

each	Flood cell	Existing defence Y/ N?	Flood Risk		Effects of Flood Risk Management Options						
			Flood risk today	Flood risk with climate change	Future local defences?	Modifications to storage areas		Managed realignment		Upstream storage (on-line)	Land Manageme
						Modification of Cawood and Kelfield Ings	Modification of Clifton Ings	Lower Wharfe	D/s of Selby		
Linton to York	A1 – Linton on Ouse	N	Moderate	Significant	No	No impact	Marginally raised water levels during flood events – local defences may be required	No impact	No impact	Raised water levels upstream of storage area. Reduced levels downstream	
	A2 – Newton on Ouse	N	Low	Moderate	No						
	A3 – Nun Monkton	N	Moderate	Significant	No						
	A4 – Beningbrough	N	Moderate	Significant	No						
	A5 – Poppleton	N	Moderate	Significant	No						
York	B1 – Millfield Industrial Estate	N	Significant	Significant	No	Reduced water levels during flood events, with increasing benefits as you go downstream	Reduced water levels during flood events	No impact	No impact	Reduced water levels during flood events	Reduced wa levels duri flood
	B2 – York Waterworks	Y	Moderate	Significant	No						
	B3 – Water End (Leeman Road)	Y	Moderate	Significant	Scheme viable possible funding in first five years						
	B4 – War Memorial Gardens and North Street	Part	Moderate	Significant	Scheme viable, possible funding after 2010						
	B5 – Knavesmire	N	Low	Moderate	Scheme viable, but funding only possible in long-term						
	B6 – Hob Moor	N	Moderate	Significant	No						
	B7 – Queens Staith and Skeldergate	N	Significant	Significant	No						
	B8 – Clementhorpe (Lower Ebor Street)	Part	Moderate / Significant	Significant	Scheme viable, possible funding after 2010						
	B9 – Clementhorpe (Rowntree Park and Bishopthorpe Road)	N	Moderate	Significant	No						
	B10 – Rawcliffe and Clifton Park	Y	Moderate	Significant	No						
	B11 – Queen Anne School (Lower Bootham Phase 1)	Y	Moderate	Significant	Scheme viable, but funding only possible in long-term						

Table S2 – How will the Ouse Flood Risk Management Strategy affect me?

Reach	Flood cell	Existing defence Y/ N?	Flood Risk		Effects of Flood Risk Management				
			Flood risk today	Flood risk with climate change	Future local defences?	Modifications to storage areas		Managed realignment	
						Modification of Cawood and Kelfield Ings	Modification of Clifton Ings	Lower Wharfe	D/s of Selby
B York	B12 – Marygate and Museum Gardens (Lower Bootham Phase 2)	Y	Moderate	Significant	Scheme viable, funding only possible in long-term	Reduced water levels during flood events, with increasing benefits as you go downstream	Reduced water levels during flood events	No impact	No impact
	B13 – Lendal Bridge – Ouse Bridge left bank	N	Low	Moderate	No				
	B14 – Foss	Part	Moderate	Significant	Scheme viable, possible funding after 2010				
	B15 – King's Staith and South Esplanade	N	Significant	Significant	Scheme viable, possible funding after 2010				
	B16 – New Walk	N	Moderate	Significant	Scheme viable, funding only possible in long-term				
	B17 – Middlethorpe	N	Moderate	Significant	No				
	B18 – Fulford	N	Moderate	Significant	Scheme viable, possible funding after 2010				
C York to Naburn	C1 – Bishopthorpe	Y	Low	Moderate	No	Reduced water levels during flood events, with increasing benefits as you go downstream	Reduced water levels during flood events	No impact	No impact
	C2 – Acaster Malbis	N	Significant	Significant	No				
	C3 – Naburn	N	Significant	Significant	No				
	C4 – Naburn STW	N	Moderate	Significant	No				

Key

Local defences

Flood risk	Meaning
Low	The chance of flooding flooding in any year is 0.5 percent (1 in 200) or less
Moderate	The chance of flooding in any year is 1.3 precent (1 in 75) or less, but greater than 0.5 percent (1 in 200)
Significant	The chance of flooding in any year is greater than 1.3 percent (1 in 75)

Community-wide options

Cell colour

Table 3.6: Current Standards of Service and Defence Provision

Table 3.3 – Current standards of service and defence condition					
Reach	Flood cell[6]	Existing defences?	Flood event annual probability:[7]		
			Properties at risk from 1% flood	Onset of flooding	S p
A nton to York	A1 – Linton on Ouse	N	0	<1%	
	A2 – Newton on Ouse	N	1 – 2	2%	
	A3 – Nun Monkton	N	0	<1%	
	A4 – Beningbrough	N	0	<1%	
	A5 – Poppleton	N	1	~1%	
B York	B1 – Millfield Industrial Estate	N	0	0.5%	
	B2 – York Waterworks	Y	1	1%	
	B3 – Water End/Leeman Road	Y	570	2%	
	B4 – War Memorial Gardens and North Street	Part	421	2%	
	B5 – Knavesmire	N	209	>20%	
	B6 – Hob Moor	N	153	2%	
	B7 – Queens Staith and Skeldergate	N	88	>20%	
	B8 – Clementhorpe (Lower Ebor Street)	Part	201	4%	
	B9 – Clementhorpe (Rowntree Park and Bishopthorpe Road)	N	7	4%	
	B10 – Rawcliffe and Clifton Park	Y	138	2%	
	B11 – Queen Anne School (Lower Bootham Phase 1)	Y	543	4%	
	B12 – Marygate and Museum Gardens (Lower Bootham Phase 2)	Y	82	2%	
	B13 – Lendal Bridge – Ouse Bridge left bank	N	3	10%	
	B14 – Foss	Part	492	1%	
	B15 – King's Staith and South Esplanade	N	59	>20%	
	B16 – New Walk	N	87	>20%	
	B17 – Middlethorpe	N	3	>20%	
	B18 – Fulford	N	61	>20%	
C York to Naburn	C1 – Bishopthorpe	Y	160	>20%	
	C2 – Acaster Malbis	N	35	>20%	
	C3 – Naburn	N	121	>20%	
	C4 – Naburn STW	N	0	-	
D Naburn to Wharfe	D1 – Stub Wood (Acaster Marshes)	Y	0	1.0%	
	D2 – Acaster Selby	Part	8	>20%	
	D3 – Stillingfleet (including Escrick)	Y	258	4%	
	D4 – Stillingfleet House	N	0	0.5%	
	D5 – Bell Hall	N	3	>20%	
E Wharfe	E1 – Stutton	N	0	0.5%	
	E2 – Kirkby Wharfe	N	13	>20%	
	E3 – Ulleskelf West	Y	11	20%	

3.9 River Foss

General

- The watercourse is known as the River Foss along its whole length, and is designated as Main River from just upstream of Yearsley Bridge (OS NGR SE 6097 5393) to its downstream extent at the confluence with the River Ouse, a distance of approximately 3km. The total length of the River Foss from its source in the Howardian Hills to the confluence with the River Ouse is approximately 36km.
- The river drains a catchment area of approximately 172km², rising on Yearsley Moor in the Howardian Hills (NGR SE5776 7497). The source is approximately 27km upstream of York and the highest point in the catchment lies at approximately 170mAOD.
- The Foss was canalised between 1793 and 1806, between its confluence with the River Ouse and Sheriff Hutton Bridge, a distance of eleven and a half miles. A small reservoir (Oulston Reservoir), owned by City of York Council, is located in the upper part of the catchment, less than a kilometre downstream of the source of the river. The reservoir is on-line and drains a very small part of the total catchment (approximately 1.5km²). The reservoir was constructed to top up flow during dry summer periods when the river was being used by river traffic, to compensate for loss of water during lock usage
- The Foss Navigation fell into decline with the building of the railways from 1845 onwards. All of the locks are now dismantled apart from Castle Mills Lock. The Navigation now ends shortly upstream of the Sustrans Iron Bridge over Huntington Road, a distance of 2.86km. The Navigation Authority is City of York Council.
- The mean summer river level is 7.6m AOD at Castle Mills Lock
- Normal summer flow is 1.0 cumecs
- The soils within the upper and lower sections of the Foss catchment consist of slowly permeable, seasonally waterlogged, fine loamy and clayey soils. The soils of the central part of the catchment are permeable fine sandy soils.
- The solid geology of the Vale of York consists of Permo-Triassic rocks cutting across Carboniferous rocks of the Yorkshire Dales. The Permian sequence of Magnesian Limestone and Marl forms a north south ridge of higher land on the west of the Vale of York, and is overlain on the eastern side by Sherwood Sandstone. This is overlain by Mercia Mudstone and Jurassic Lias to the east of the Vale of York. The downstream part of the River Foss catchment is located within the Sherwood Sandstone, and the northern section in the Mercia Mudstone and Jurassic Lias.

The long-term average annual rainfall over the River Foss catchment is 637mm.

Main Tributaries within York:

- **Westfield Beck** – drains relatively flat areas of residential development in Wigginton, Haxby and New Earswick north of the city. It discharges by gravity, via 1.0m dia. culvert, to Old River Foss. Storm flows (approximately 0.5 cumecs) are pumped by a YWS owned pumping station to main River Foss approximately 1km upstream of the gravity discharge.
- **South Beck** – drains an area of 2.6km² north of the city, consisting of relatively flat areas of arable land and Monk's Cross Shopping development at the top of the catchment, along with residential areas at the bottom.
- **Tang Hall Beck** -drains an area to the north east of the city, it flows through the suburbs of Tang Hall and Layerthorpe before flowing into the River Foss at the

edge of the city centre. Classed as Critical Ordinary Watercourse (COW) for bottom 3.7km.

- **Osbaldwick Beck** - drains an area to the east of the city, it flows through the village of Osbaldwick and the suburb of Tang Hall before joining Tang Hall Beck in a culvert under St Nicholas Fields. Classed as COW for bottom 3.9km.
- The total catchment of Tang Hall and Osbaldwick Becks drains an area approximately 47km² in size, and contributes a significant amount of flow to the River Foss, via two outfalls, a low-flow and a high-level culvert. The low-flow system, known as Tang Hall Culvert, was constructed in the 18th and 19th centuries and discharges into the River Foss immediately downstream of the Foss Barrier at Browney Dyke. When the barrier is closed, a penstock on the Tang Beck culvert, immediately downstream of the barrier, is closed and diverted upstream of the barrier. The inlet of this culvert is only 150mm above the normal summer level of the river Ouse, and as a consequence its capacity is very limited, with a maximum of 2 cumecs in the most favourable conditions.
- The Foss Islands High Level Culvert connects Tang Hall Beck more directly to the River Foss at a location approximately 50m south of Office World on Foss Islands Road, approximately 1km upstream from Castle Mills Sluice. This culvert comprises a 2.1m by 2.1m twin concrete box system, which is regulated by a sluice gate that is controlled and maintained by the Environment Agency. It is operated only when the level in Tang Hall beck exceeds the level in the river Foss.
- The River Foss is controlled to a normal level equal to 7.6m AOD by a lock and sluice-gated bypass channel at Castle Mills Bridge. Thus, the most frequently occurring floods in the River Ouse, which do not exceed 7.6m AOD, have no effect on the levels in River Foss. However, once this level is exceeded, floodwater from the River Ouse backs up the River Foss and eventually overtops its banks and floods surrounding properties. The Foss Barrier (para 3.8.5) was constructed to prevent this in 1987. A similar problem occurs with Tang Hall Beck and Osbaldwick Beck, with subsequent back-flow from the River Foss. It was this dramatic effect that contributed to the severity of the floods in 1947, 1978 and 1982.

Environmental Features

3.9.1 The Foss catchment is predominantly rural in the upper reaches, consisting of agricultural land and dispersed settlements. An area of heathland known as Strensall Common (579ha) is designated as a SSSI due to it being one of only two areas of open heathland remaining in the Vale of York, and has been identified as being of national importance, being designated as a Special Area of Conservation. This is shown on **Figure 10**. In the lower reaches, as the river enters the vicinity of York, the catchment becomes increasingly urbanised, passing through several large villages such as Strensall, Haxby and Huntington before entering the city of York.

Floodplain Characteristics - Past Flood Events

- Severe floods March 1947, January 1982 and November 2000
- Maximum flood level (1982) = 9.95m AOD at Castle Mills Lock, which provides the basis for the current flood zone 3 outline.
- Maximum 1 in 100-year flow of 31.8 cumecs.
- Prior to the building of the Foss Barrier, 70 hA flooded in January 1982, 78 domestic properties and 64 commercial properties flooded for 2-3 days.
- Examination of the available historical flooding information has enabled the flood events on the Foss to be ranked and given an estimated return period using the

Gringorten formula. Using this formula, **the November 2000 flood had an estimated return of 1 in 90 years** (based on data over the last 50 years).

Flood Defences

- The Foss Barrier (including associated pumping station and flood walls) was built in 1986/7 at a cost of £3.34 million. It consists of a moveable barrier system (a large 'turn and lift gate') which when in place, effectively isolates the Foss from the Ouse, stopping water from surging back upstream. Because this prevents water naturally flowing from the Foss into the Ouse, a system of eight high volume pumps was installed (pumping capacity of 30.4 cumecs). In short, when the barrier is lowered, the optimum level of water in the Foss is maintained by pumping water around the barrier, directly into the Ouse thus maintaining a steady water level in the River Foss.

- The flood protection of York along the Foss is highly dependant on the operation of the Foss Barrier. In November 2000, when York was threatened with flooding, the pumps at the Foss Barrier failed to operate for 3-4 hours owing to a power failure and as a result the water levels in the River Foss increased rapidly. Flooding in the river Foss catchment was only narrowly avoided. The Foss Barrier pumps were refurbished following the 2000 flood to restore the capacity to the original design and improve reliability. The loss of a flood control system due to circumstances such as this is a real possibility and as such the EA flood zone maps are prepared not only when the barrier and pumps operate as per design, but also for various 'failure' scenarios at the Foss Barrier and pumping station for an event with a 1 in 100-year return period. These scenarios are as follows:

    - Barrier fails to close during a 'typical' flooding event;
    - Barrier closed with all 8 pumps failing to operate; and
    - Barrier closed with 4 pumps out of the 8 failing to operate.

3.9.2 In short, the EA flood mapping study of 2004 has shown that the greatest risk of flooding from the River Foss to the city of York is a direct result of the capacity of the pumps at the Foss barrier being exceeded (flow in excess of 30.4 cumecs) and Tang Hall Beck overtopping the Foss Islands disused railway line at James Street Traveler's site. This latter source of flooding occurs during events greater than 10-year return period.

3.9.3 During 1 in 100-year events affecting both the Ouse and Foss catchments, the capacity of the pumps is predicted to be exceeded when flows from the River Foss catchment reach the Foss Barrier. Approximately 5 hours later, the River Ouse is predicted to flood into the River Foss via overland flooding at Tower Street. At this point the combined floodwaters at Browney Dyke would continue to exceed the capacity of the pumps for approximately 19 hours. The water levels on the Foss, upstream of the barrier, increase once the capacity of the pumps is exceeded and continue to do so until the incoming flow is less than the capacity. The maximum predicted water levels occur coincidental with the peak from the River Ouse via Tower Street.

Flood Risk Areas

3.9.4 **Figure 9,** the EA's Flood Zone Map, shows the areas that are at greatest risk of property flooding from 1 in 100-year and 1 in 1000-year events in the River Foss catchment, along with flooding from its main tributaries. These flood risk areas are discussed in detail below.

River Foss

3.9.5 The Castle Mills Sluice gate, at Tower Street, controls water levels in the River Foss upstream of Castle Mills against events less than or equal to the 1 in 50-year return. For events greater than 1 in 50-year return, the Foss Barrier and pumping station control water levels in the River Foss.

3.9.6 The flood zone maps assume failure of the Foss Barrier Defences, with inundation from the River Ouse affecting the area up to Yearsley Weir (near to Yearsley Swimming Baths). Historically, the worst property flooding occurred during the 1982 floods, when no defences were in place. Consequently, 1 in 100-year flood levels will be over 400mm deeper than has ever been experienced in the past.

3.9.7 The total number of properties at risk of flooding from a 1 in 100-year return period flood event in the River Foss reaches is estimated to be 558 for the barrier and pumps operating as per design. The majority of these properties are clustered in the densely urbanised parts of the catchment, particularly in the city centre and along Huntington Road in the Groves between the disused railway bridge and Monk Bridge and opposite King George's Field. James Street Traveler's site is severely affected.

3.9.8 When the Foss Barrier is closed and all 8 pumps fail to operate the number of properties at risk increases to 840.

3.9.9 However, lack of flooding records in some of the former Ryedale District areas north of Bell Farm has led to large areas being covered by modelled predictions of Zone 2 and 3 flooding, where little or no historic flooding is known to have occurred. The Environment Agency acknowledge this modelling to be indicative and continue to review their flood risk mapping using more sophisticated modelling, with the aim of refining the zone boundaries. To date this has been achieved for the Strensall area, but is still outstanding for Huntington, New Earswick, Earswick, Haxby and Wigginton.

Tang Hall and Osbaldwick Beck

3.9.10 Serious flooding from Tang Hall Beck and Osbaldwick Beck occurred in March 1947, January 1982 and November 2000.

3.9.11 The critical sections of Tang Hall and Osbaldwick Becks are within the urban paved areas within the outer ring road. November 2000 saw high water levels, out of bank flow and flooding in the following areas: -

Osbaldwick Beck

- Metcalfe Lane, Appletree Village

Tang Hall Beck

- William Birch's Plant Yard,
- Applecroft Road
- James Street Traveler's Site

3.9.12 Since November 2000, the James Street Traveler's Site has flooded on two further occasions due to problems with balancing the flood flows between Tang Hall Beck and the River Foss. This risk should be reduced after April 2006, when the Environment Agency are to link the telemetry monitoring high flood levels on both the Foss and Tang Hall Beck.

South Beck

3.9.13 November 2000 saw flooding of part of the Monk's Cross Development at the northern extent of South Beck. The Asda car park and the adjacent roundabout were affected by floodwaters, due to the operation (lack of capacity / failure of the pumps) of the attenuation ponds immediately downstream. However, numerous problems have occurred in the past with the pumping arrangements for the pond, such that additional temporary pumping is in place to prevent overflow of the ponds. Large areas of developable land still exist at Monks Cross, which will require detailed assessment of flood risk to prevent exacerbating the situation. This is addressed in Section 4.

Westfield Beck

3.9.14 Extensive flooding is predicted at Haxby and Wigginton from Westfield Beck. Ascot Road and Mill lane are known to have flooded in the past, but this may have been as a result of the late or non-operation of Westfield Beck Pumping Station. At the time, responsibility for the pumping station was in dispute but Yorkshire Water has since formally adopted this pumping station. It is therefore anticipated that maintenance issues should not be a problem in future.

Future Flood Defence Strategy

3.9.15 The current standard of protection against flooding from the River Ouse provided by the Foss Barrier and its defences is 2% (1 in 50). The standard for the onset of flooding is 1% (1 in 100). However, these defences could be outflanked by a 4% (1 in 25) flood event around Tower Street.

3.9.16 To provide a 2% (1 in 50) standard of protection against outflanking of the Foss Barrier, the following works may be required: -

- Raise wall from Skeldergate Bridge around St. George's Field park area, and
- Raise Tower Street in the vicinity of the roundabout / traffic lights at the end of Skeldergate Bridge.

3.9.17 However, the above works will only address flood risk from the River Ouse. Further modeling work was recommended in the Ouse Strategy Report, to better understand the risk of flooding from the River Foss itself, and from its tributaries, notably Tang Hall Beck and Osbaldwick Beck.

Development in Flood Zone 3a

- When considering potential **development sites within Zone 3a, the Sequential and Exception Tests must be passed,** as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

3.9.18 The River Foss Zone is the only zone in York that currently has the benefit of a large pumping station, at the Foss Barrier, to deal with flood flows. The EA stated in November 2006, that overtopping of Ouse defences into the Foss Zone would have much less serious consequences than in any other areas, which have only walls / embankments for protection.

3.10 River Derwent

General

- This zone is bounded to north by the Hambleton Hills, Cleveland Hills and the North York Moors, by the Wolds and the coast to the east, the Vale of York to the west and the Humber Estuary to the south. The upland areas have maximum elevations of around 400m AOD. **Figure 3** shows the extent of the catchment and its relationship to York. Total length of "Main River" of the Derwent and its tributaries is approximately 275km.
- The Upper Derwent passes through areas of Corallian Limestone and Kimmeridge Clay, flowing into the Lower Derwent within Mercia Mudstone, Jurassic Lias and Sherwood Sandstone.
- A large proportion of the catchment upstream of York is forested. Management of felling and planting schemes will have a noticeable affect on runoff and sedimentation of the Derwent, which will be addressed in the Derwent Catchment Flood Management Plan, due for publishing in early 2006.
- Barmby Barrage, constructed in the 1970's to maintain the fresh-water quality of the river, controls the Derwent's outfall to the tidal section of River Ouse.
- The Derwent is navigable downstream of Stamford Bridge. However, navigation above Sutton Lock, Elvington is by permission from the EA, as water is extracted by Yorkshire Water from the Derwent above this point.
- On the upper Derwent, the majority of flood flows from the eastern part of the North York Moors are diverted into the Sea Cut, a 19th century man-made channel discharging to the North Sea at Scalby. However, during a 1 in 100-year event, significant flows (over 95%) are contributed to the Lower Derwent by the following tributaries: -
    - River Rye, River Riccall, Hodge Beck, River Dove, River Seven, Costa Beck, Pickering Beck, Thornton Beck and River Hertford.
- The catchment is predominantly rural, extending over 2100 km², one tenth of Yorkshire. Geographically it is split into two areas: -
    - Upper Derwent – relatively steep upland areas, predominantly heather/grass moorland and commercial woodland, accounting for two-thirds of the total catchment and the majority of the flow. Characterised by steep sided valleys.
    - Lower Derwent – gentler sloping area in the Vale of Pickering and Vale of York, mainly agricultural use with natural washlands subject to frequent flooding.
- Mean summer river level of 5.45m AOD (upstream of Elvington sluices)
- Mean summer river level of 2.67m AOD (downstream of Elvington sluices)
- Normal summer flow of 15 cumecs
- The long-term average annual rainfall over the River Derwent catchment ranges from 600mm near Barmby to 1100mm on the North York Moors, with an overall average of 763mm.

Environmental Features

- The Lower Derwent valley is internationally recognised for its conservation importance, with good biodiversity. The River Derwent and Derwent Ings are SSSI's, and Derwent Ings has been identified as being of national importance. River Derwent and Wheldrake Ings have designation as Special Areas of Conservation. Wheldrake Ings has an additional classification as a Special Protection Area under the Birds Directive (Council Directive 79/409/EEC on the

conservation of wild birds) and is a wetland area of international importance designated under the Ramsar Convention.

- River quality of the River Derwent at Elvington is classed as "good" upstream of Elvington sluice, and "fair" downstream of the sluice.

Floodplain Characteristics

Past Flood Events

- Maximum 1 in 100-year flow of 221 cumecs at Elvington
- Severe floods in March 1999 and November 2000, affecting large areas of agricultural land. The only residential area of York affected by River Derwent flooding is Elvington village.
- Flash flooding of Elvington Main Street can occur due to summer storms. This is due to the lack of capacity in Elvington Beck, and can occur independent of high river levels in the Derwent.
- Flooding of the road was witnessed in 2002 at the Dalby Lane / Main Street junction at Elvington, away from the effects of backing-up from the River Derwent, although no properties were flooded at this location.
- Maximum flood level of 7.06m AOD (@ Elvington - 2000), with 13 properties flooded over a period of 19 days. The return period for this event was assessed to be 1 in 50 years [5], with peak flows of approximately 199 cumecs [5].

Flood Defences

3.10.1 Flood defences, primarily in the form of earth embankments, are present from Elvington down to the Barmby Barrage, at the confluence of the River Derwent and the tidal River Ouse. However, during the 2000 flood, extensive flooding of agricultural floodplain took place throughout the catchment and all the washlands were filled to capacity. The main York-Scarborough rail line at Malton was flooded, as were many road links, including the B1228 through Elvington.

3.10.2 A new flood defence is to be built by the Environment Agency at Elvington in 2007, which will protect the village from the effects of River Derwent floods. Maintenance of the new defence will be shared between the Environment Agency (floodbank) and the Ouse and Derwent IDB (pumping station), as Elvington Beck is not designated as a critical ordinary watercourse.

Future Flood Defence Strategy

3.10.3 The Derwent Catchment Flood Management Plan was at consultation stage when this SFRA was published. When completed, it will give high-level comment on the future flood defence strategy.

4 Approach to Flood Risk

4.0.1 Section 3 of this SFRA assessed the flood risks for the Ouse, Foss and Derwent river areas and outlined the key issues for each catchment. This section makes detailed recommendations for a future policy approach for the York area in each of the flood risk zones, including information on location and appropriateness of types of development.

4.0.2 Flood risk needs to be assessed from 2 different angles: -

- Is the site itself at risk of flooding?
- Will development of the site cause flooding to adjacent sites and elsewhere in the catchment?

4.0.3 It is likely that, apart from those sites within flood zones 2 and 3 (which are at risk of flooding themselves), the second factor will be the most important to consider in this study.

4.1 Policy Recommendations and Guidance

4.1.1 The following policy recommendations have been split into two sections. Section 4.1.a outlines Policy Recommendations for Forward Planning, providing advice on the application of PPS25. Section 4.1.b outlines recommended Guidance for Development Control and the Consideration of Planning Applications. Section 4.1.c gives General Drainage Guidance.

4.1.a Policy Recommendations for Forward Planning

4.1.2 The York LDF will identify areas where major developments are to be situated, taking into account a number of PPS considerations, including PPS25 covering flood risk. A balanced, flexible approach allows all material planning factors to be considered in site allocations.

4.1.3 In cases where development cannot be fully met through the provision of site allocations, LPAs are expected to make a realistic allowance for windfall development, based on past trends.

4.1.4 Flood risk within each Flood Zone will vary according to the vulnerability of different types of development. As shown below, **Table 4.1** lists the Flood Risk Vulnerability and **Table 4.2** lists the relevant Flood Zone Compatibility. Further information relating to the Sequential Test and the Exception Test refer to Section 5.

Table 4.1: Flood Risk Vulnerability Classification

Essential Infrastructure	• Essential transport infrastructure (including mass evacuation routes) that has to cross the area at risk, and strategic utility infrastructure, including electricity generating power stations and grid and primary substations.
Highly Vulnerable	• Police stations, Ambulance stations, Fire stations, Command Centres and telecommunications installations required to be operational during flooding. • Emergency dispersal points. • Basement dwellings. • Caravans, mobile homes and park homes intended for permanent residential use. • Installations requiring hazardous substances consent.
More Vulnerable	• Hospitals. • Residential institutions such as residential care homes, children's homes, social services homes, prisons and hostels. • Buildings used for: dwelling houses; student halls of residence; drinking establishments; nightclubs; and hotels. • Non–residential uses for health services, nurseries and educational establishments. • Landfill and sites used for waste management facilities for hazardous waste. • Sites used for holiday or short-let caravans and camping, **subject to a specific warning and evacuation plan**.
Less Vulnerable	• Buildings used for: shops; financial, professional and other services; restaurants and cafes; hot food takeaways; offices; general industry; storage and distribution; non–residential institutions not included in 'more vulnerable'; and assembly and leisure. • Land and buildings used for agriculture and forestry. • Waste treatment (except landfill and hazardous waste facilities). • Minerals working and processing (except for sand and gravel working). • Water treatment plants. • Sewage treatment plants (if adequate pollution control measures are in place).
Water-compatible Development	• Flood control infrastructure. • Water transmission infrastructure and pumping stations. • Sewage transmission infrastructure and pumping stations. • Sand and gravel workings. • Docks, marinas and wharves. • Navigation facilities. • MOD defence installations. • Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location. • Water-based recreation (excluding sleeping accommodation). • Lifeguard and coastguard stations. • Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms. • Essential ancillary sleeping or residential accommodation for staff required by uses in this category, **subject to a specific warning and evacuation plan**.

Notes:

1) This classification is based partly on Defra/Environment Agency research on Flood Risks to People (FD2321/TR2) and also on the need of some uses to keep functioning during flooding.

2) Buildings that combine a mixture of uses should be placed into the higher of the relevant classes of flood risk sensitivity. Developments that allow uses to be distributed over the site may fall within several classes of flood risk sensitivity.

3) The impact of a flood on the particular uses identified within this flood risk vulnerability classification will vary within each vulnerability class. Therefore, the flood risk management infrastructure and other risk mitigation measures needed to ensure the development is safe may differ between uses within a particular vulnerability classification.

Table 4.2: Flood Risk Vulnerability and Flood Zone 'Compatibility'

Flood Risk Vulnerability Classification		Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Flood Zone	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test required	✓	✓
	Zone 3a(i) (100-year protection)	Exception Test required	✓	×	Exception Test required	✓
	Zone 3a(ii) (50 to 100-year protection)	Exception Test required	✓	×	Exception Test required	Exception Test required
	Zone 3a(iii) (less than 50-year protection)	Exception Test required	✓	×	Exception Test required #	Exception Test required #
	Zone 3b'Functional Floodplain'	Exception Test required	✓	×	×	×

✓ Development is appropriate **is appropriate**

× Development should not be permitted **Development should not be permitted**

Redevelopment only – not applicable to new build

4.1.5 Forward Planning (FP) Policy Recommendations have been prepared for development within the following flood risk zones:

- FP Policy Recommendation: Flood Zone 1 - (little or no risk)
- FP Policy Recommendation: Flood Zone 2 - (low to medium risk)
- FP Policy Recommendation: Flood Zone 3a(i) – (Non-functional floodplain at high risk of flooding, with 1 in 100-year standard of flood defence)
- FP Policy Recommendation: Flood Zone 3a(ii) - (Non-functional floodplain at high risk of flooding, with 1 in 50-year standard of flood defence)
- FP Policy Recommendation: Flood Zone 3a(iii) – (Non-functional floodplain at high risk of flooding, without an appropriate standard of flood defence)
- FP Policy Recommendation: Flood Zone 3b - (Functional floodplain at high risk of flooding)

FP Policy Recommendation: Flood Zone 1 (little or no risk of flooding)

4.1.6 This Zone comprises land with an annual probability of flooding of less than 1 in 1000-year, and as such there are **no constraints on the allocation of sites due to river flooding.**

4.1.7 However, all development sites should be considered with respect to other potential types of flooding such as: -

- Sewer flooding – proposed sites should have no surface flooding during a 30-year storm event, and should retain any sewer flooding from a 1-100-year storm within the confines of the site. No property flooding should occur as a result of a 1 in 100-year storm. Allocations near to pre-1930's terraced housing or inner-city areas need careful consideration, due to the possibility of sewer flooding during summer storms from the existing combined sewerage systems.
- Groundwater
- Overland flow from adjacent sites
- Flooding to adjacent sites and elsewhere in the catchment from the site (the most important aspect to consider with land allocations in this zone)

4.1.8 The majority of the watercourses in York are up to maximum capacity. Consequently, 1 in 100-year surface water runoff rates for developments in this zone should be, where practicable, restricted to either: -

- Existing runoff rates (if a brownfield site), with preferably a reduction in runoff if possible or,
- Agricultural runoff rates (if the site has no previous development).

4.1.9 The use of sustainable drainage systems must be considered, where practicable, to enable this target to be met. Site allocations on larger sites, exceeding 1Ha, should include a suitable allowance for public open spaces, for the location of any SuDS.

4.1.10 Sites exceeding 1 Ha will also have the potential to increase flood risk elsewhere, through the addition of hard surfaces, and the effect of the new development on surface water run-off must be incorporated in a FRA.

4.1.11 The Environment Agency should be consulted for all sites over 1ha. The EA's Flood Risk Matrix (**Table 1.1, Appendix 7**) should be consulted for other types of site, which contains appropriate standard responses.

Yorkshire Water should be consulted at an early stage for all developments over 10 dwellings or sites exceeding 0.5ha.

The appropriate IDB and City of York Council's Drainage Section should be consulted on all proposed development (refer to **Figure 4**).

FP Policy Recommendation: Flood Zone 2 (low to medium risk of flooding)

4.1.12 This Zone comprises land with an annual probability of flooding of between 1 in 1000-year and 1 in 100-year.

4.1.13 This zone is generally suitable for most developments, apart from highly vulnerable uses listed in **Table 4.1**, e.g. basement dwellings and essential civil infrastructure (fire/ police/ambulance stations). Proposed allocation for essential civil infrastructure within this zone must pass the Exception Test, and should remain accessible and operational during a 1 in 1000-year flood.

4.1.14 As part of the Exceptions Test, developers intending to build within Flood Risk Zone 2 should consult the Council's emergency planning officers at an early stage. Information regarding existing emergency procedures can be provided and advice given on the suitability of any proposed additions/amendments.

4.1.15 The EA's flood zone mapping for the 1 in 100-year event in York is considered to have a high degree of confidence, due to the collation and interpretation of past historical data. However, the 1 in 1000-year flood outline is less certain in some areas outside the old city boundary. **Consequently, all development sites in Zone 2 (regardless of size) will require a site-specific FRA to prove their viability, which must also assess the sensitivity of the site to climate change.** FRAs should contain the level of detail requested in the EA's planning matrix, which will vary with the size of the proposed development.

4.1.16 Sites that are less sensitive to climate change should be given preference when considering site allocation.

4.1.17 All development sites in Zone 2 should also be considered with respect to other potential sources of flooding such as: -

- Sewer flooding – sites should have no surface flooding during a 30-year storm event, and should retain any sewer flooding from a 1 in 100-year storm within the confines of the site. No property flooding should occur as a result of a 1 in 100-year storm. Allocations near to pre-1930's terraced housing or inner-city areas need careful consideration, due to the possibility of sewer flooding during summer storms from the existing combined sewerage systems.
- Groundwater
- Overland flow from adjacent sites
- Flooding to adjacent sites and elsewhere in the catchment from the site (the most important aspect to consider with land allocations in this zone)

4.1.18 The majority of the watercourses in York are up to maximum capacity. Consequently, 1 in 100-year surface water runoff rates for developments in this zone should be, where practicable, restricted to either: -

- Existing runoff rates (if a brownfield site), with preferably a reduction in runoff if possible or,
- Agricultural runoff rates (if the site has no previous development).

4.1.19 The use of sustainable drainage systems must be considered, where practicable, to enable this target to be met. Site allocations on larger sites, exceeding 1Ha, should include a suitable allowance for public open spaces, for the location of any SuDS.

4.1.20 Sites exceeding 1 Ha will also have the potential to increase flood risk elsewhere, through the addition of hard surfaces, and the effect of the new development on surface water run-off must be incorporated into the required FRA.

4.1.21 The Environment Agency should be consulted for all sites over 1ha and all civil emergency infrastructures. The EA's Flood Risk Matrix (**Table 1.1, Appendix 7**) should be consulted for other types of site, which contains appropriate standard responses.

4.1.22 Yorkshire Water should be consulted for all developments over 10 dwellings or sites exceeding 0.5ha.

The appropriate IDB and City of York Council's Drainage Section should be consulted on all proposed development (refer to **Figure 4**).

FP Policy Recommendation:- Flood Zone 3a: Non-functional floodplain at high risk of flooding - general

4.1.23 This Zone comprises land with an annual probability of river flooding greater than 1 in 100-years.

The water-compatible and less vulnerable uses of land in **Table 4.1** are appropriate in this zone.

The highly vulnerable uses in **Table 4.1** should not be permitted in this zone.

4.1.24 The more vulnerable and essential infrastructure uses in **Table 4.1** should only be permitted in this zone if the Exception Test is passed. Essential infrastructure permitted in this zone should be designated and constructed to remain operational and safe for users in time of flood.

- When considering potential **development sites within Zone 3a, the Sequential and Exception Tests must be passed** as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

4.1.25 In some instances this detailed FRA work may show that the specific site is not in the higher risk area, which is usually as a result of more accurate site level data and assessment of overland flow routes.

4.1.26 In order to assess which of the Zone 3 areas could be suitable for development (with mitigating measures), land use was used to delineate zones 3a (non-functional floodplain) and 3b (functional floodplain) within the high-risk zone. Zone 3a was further split, as described in Section 3.2.4 and shown on **Figure 11.** Recommendations are given for each sub-zone in the following sections.

Proposed development should avoid the Rapid Inundation Zones described in section 3.4.

The Environment Agency must be consulted regarding all development within Flood Zone 3.

FP Policy Recommendation:- Flood Zone 3a(i): Non-functional floodplain at high risk of flooding which are currently defended to the minimum standard as defined by PPS25 (1 in 100-year protection).

4.1.27 As detailed in Section 3, no part of **York's flood defences currently provide 1 in 100-year standard of protection.**

The water-compatible and less vulnerable uses of land in **Table 4.1** are appropriate in this zone.

The highly vulnerable uses in **Table 4.1** should not be permitted in this zone.

4.1.28 The more vulnerable and essential infrastructure uses in **Table 4.1** should only be permitted in this zone if the Exception Test is passed. Essential infrastructure, permitted in this zone, should be designed and constructed to remain operational and safe for users in time of flood.

4.1.29 When considering potential **development sites within Zone 3a, the Sequential and Exception Tests must be passed,** as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

4.1.30 As part of the Exception Test, developers intending to build within Flood Risk Zone 3 should consult the Council's emergency planning officers at an early stage. Information regarding existing emergency procedures can be provided and advice given on the suitability of any proposed additions/amendments.

4.1.31 In some instances this detailed FRA work may show that the specific site is not in the higher risk area, which is usually as a result of more accurate site level data and assessment of overland flow routes.

4.1.32 All development sites in Zone 3a(i) should also be considered with respect to other potential sources of flooding such as: -

- Sewer flooding – sites should have no surface flooding during a 30-year storm event, and should retain any sewer flooding from a 1 in 100-year storm within the confines of the site. No property flooding should occur as a result of a 1 in 100-year storm. Allocations near to pre-1930's terraced housing or inner-city areas need careful consideration, due to the possibility of sewer flooding during summer storms from the existing combined sewerage systems.
- Groundwater
- Overland flow from adjacent sites
- Flooding to adjacent sites and elsewhere in the catchment from the site

4.1.33 Rapid inundation of areas behind flood defences, following breach or overtopping, has the potential to lead to structural damage, injury or death. A sequential approach to the allocation of sites within Rapid Inundation Zones should therefore be followed, with preference being given to sites where the lowest consequences of flood defence failure are anticipated.

4.1.34 The majority of the watercourses in York are up to maximum capacity. Consequently, 1 in 100-year surface water runoff rates for developments in this zone should be, where practicable, restricted to either: -

- Existing runoff rates (if a brownfield site), with preferably a reduction in runoff if possible or,

- Agricultural runoff rates (if the site has no previous development).

4.1.35 The use of sustainable drainage systems must be considered, where practicable, to enable this target to be met. Site allocations on larger sites, exceeding 1Ha, should include a suitable allowance for public open spaces, for the location of any SuDS.

4.1.36 Sites exceeding 1 Ha will also have the potential to increase flood risk elsewhere, through the addition of hard surfaces, and the effect of the new development on surface water run-off must be incorporated into the required FRA.

4.1.37 Yorkshire Water should be consulted for all developments over 10 dwellings or sites exceeding 0.5ha.

The appropriate IDB and City of York Council's Drainage Section should be consulted on all proposed development (refer to **Figure 4**).

4.1.38 Flood risk within this zone is already high. The impacts of climate change may increase the frequency and/or magnitude of flood events, and must be taken into account when planning all new developments.

Proposed development should avoid the Rapid Inundation Zones described in section 3.4.

The Environment Agency must be consulted regarding all development within Flood Zone 3.

FP Policy Recommendation:- Flood Zone 3a(ii): Non-functional floodplain at high risk of flooding, with an appropriate standard of flood defence for existing development as defined by Defra (1 in 50-year protection), but not defended to the appropriate minimum standard for new development as defined by PPS25 (1 in 100-year protection).

The River Foss Zone

4.1.39 **Flood cell B14 (refer to Figure 8) is the only zone in York that has the benefit of a large pumping station, at the Foss Barrier, to deal with high flood flows.** The EA stated in November 2006, that overtopping of Ouse defences into the Foss Zone would have much less serious consequences than in any other areas in Zone 3.

The water-compatible uses of land in **Table 4.1** are appropriate in this zone.

4.1.40 The more vulnerable, less vulnerable and essential infrastructure uses in **Table 4.1** should only be permitted in this zone if the Exception Test is passed. Essential infrastructure permitted in this zone should be designated and constructed to remain operational and safe for users in time of flood

The highly vulnerable uses in **Table 4.1** should not be permitted in this zone.

Other areas behind existing flood defences

4.1.41 The remaining flood defences generally have only walls / embankments for protection. Although offering 1 in 50-year protection, the EA has stated that areas behind these defences have the following suitability: -

The water-compatible uses of land in **Table 4.1** are appropriate in this zone.

The highly vulnerable uses in **Table 4.1** should not be permitted in this zone.

4.1.42 The more vulnerable, less vulnerable and essential infrastructure uses in **Table 4.1** should only be permitted in this zone if the Exception Test is passed, **which will be more restrictive than in Flood Cell B14**. The essential infrastructure uses in **Table 4.1** should only be permitted in this zone if the Exception Test is passed. Essential infrastructure permitted in this zone should be designated and constructed to remain operational and safe for users in time of flood.

4.1.43 When considering potential **development sites within Zone 3a(ii), the Sequential and Exception Tests must be passed,** as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

4.1.44 As part of the Exception Test, developers intending to build within Flood Risk Zone 3 should consult the Council's emergency planning officers at an early stage. Information regarding existing emergency procedures can be provided and advice given on the suitability of any proposed additions/amendments.

4.1.45 In some instances this detailed FRA work may show that the specific site is not in the higher risk area, which is usually as a result of more accurate site level data and assessment of overland flow routes.

4.1.46 All development sites in Zone 3a(ii) should also be considered with respect to other potential sources of flooding such as: -

- Sewer flooding – sites should have no surface flooding during a 30-year storm event, and should retain any sewer flooding from a 1 in 100-year storm within the confines of the site. No property flooding should occur as a result

of a 1 in 100-year storm. Allocations near to pre-1930's terraced housing or inner-city areas need careful consideration, due to the possibility of sewer flooding during summer storms from the existing combined sewerage systems.

- Groundwater
- Overland flow from adjacent sites
- Flooding to adjacent sites and elsewhere in the catchment from the site (the most important aspect to consider with land allocations in this zone)

4.1.47 Rapid inundation of areas behind flood defences, following breach or overtopping, has the potential to lead to structural damage, injury or death. A sequential approach to the allocation of sites within Rapid Inundation Zones should therefore be followed, with preference being given to sites where the lowest consequences of flood defence failure are anticipated.

4.1.48 The majority of the watercourses in York are up to maximum capacity. Consequently, 1 in 100-year surface water runoff rates for developments in this zone should be, where practicable, restricted to either: -

- Existing runoff rates (if a brownfield site), with preferably a reduction in runoff if possible or,
- Agricultural runoff rates (if the site has no previous development).

4.1.49 The use of sustainable drainage systems must be considered, where practicable, to enable this target to be met. Site allocations on larger sites, exceeding 1Ha, should include a suitable allowance for public open spaces, for the location of any SuDS.

4.1.50 Sites exceeding 1 Ha will also have the potential to increase flood risk elsewhere, through the addition of hard surfaces, and the effect of the new development on surface water run-off must be incorporated into the required FRA.

4.1.51 Yorkshire Water should be consulted for all developments over 10 dwellings or sites exceeding 0.5ha.

The appropriate IDB and City of York Council's Drainage Section should be consulted on all proposed development (refer to **Figure 4**).

4.1.52 Flood risk within this zone is already high. The impacts of climate change may increase the frequency and/or magnitude of flood events, and must be taken into account when planning all new developments.

Proposed development should avoid the Rapid Inundation Zones described in section 3.4.

The Environment Agency must be consulted regarding all development within Flood Zone 3.

FP Policy Recommendation:- Flood Zone 3a(iii): Non-functional floodplain at high risk of flooding, without an appropriate standard of flood defence

4.1.53 This Zone, shown on **Figure 11**, comprises land with an annual probability of river flooding greater than 1 in 100-years. There is a high risk of flooding, as these areas have no flood defences and most are **known to have flooded in the past**. The current flood defences shown on Figure 7 all offer at least the appropriate minimum standard as defined by Defra (1 in 50-year protection) and are in Zones 3a(i) or 3a(ii).

The water-compatible uses of land in **Table 4.1** are appropriate in this zone.

The highly vulnerable uses in **Table 4.1** should not be permitted in this zone.

4.1.54 The more vulnerable, less vulnerable and essential infrastructure uses in **Table 4.1** should only be permitted in this zone if the Exception Test is passed. The more vulnerable and less vulnerable uses should be restricted to redevelopment sites only, and does not apply to new build. Essential infrastructure–permitted in this zone should be designated and constructed to remain operational and safe for users in time of flood.

4.1.55 Early contact with the Environment Agency is required to establish the viability of sites in this zone, as they have placed constraints on development in these high-risk areas within the historic flood outline to control any increase in the number of people introduced into the floodplain and put at risk of flooding.

4.1.56 When considering potential **development sites within Zone 3a(iii), the Sequential and Exception Tests must be passed,** as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

4.1.57 As part of the Exception Test, developers intending to build within Flood Risk Zone 3 should consult the Council's emergency planning officers at an early stage. Information regarding existing emergency procedures can be provided and advice given on the suitability of any proposed additions/amendments.

4.1.58 All development sites in Zone 3a(i) should also be considered with respect to other potential sources of flooding such as: -

- Sewer flooding – sites should have no surface flooding during a 30-year storm event, and should retain any sewer flooding from a 1 in 100-year storm within the confines of the site. No property flooding should occur as a result of a 1 in 100-year storm. Allocations near to pre-1930's terraced housing or inner-city areas need careful consideration, due to the possibility of sewer flooding during summer storms from the existing combined sewerage systems.
- Groundwater
- Overland flow from adjacent sites
- Flooding to adjacent sites and elsewhere in the catchment from the site (the most important aspect to consider with land allocations in this zone)

4.1.59 The majority of the watercourses in York are up to maximum capacity. Consequently, 1 in 100-year surface water runoff rates for developments in this zone should be, where practicable, restricted to either: -

- Existing runoff rates (if a brownfield site), with preferably a reduction in runoff if possible or,
- Agricultural runoff rates (if the site has no previous development).

4.1.60 The use of sustainable drainage systems must be considered, where practicable, to enable this target to be met. Site allocations on larger sites, exceeding 1Ha, should include a suitable allowance for public open spaces, for the location of any SuDS.

4.1.61 Sites exceeding 1 Ha will also have the potential to increase flood risk elsewhere, through the addition of hard surfaces, and the effect of the new development on surface water run-off must be incorporated into the required FRA.

4.1.62 Yorkshire Water should be consulted for all developments over 10 dwellings or sites exceeding 0.5ha.

The appropriate IDB and City of York Council's Drainage Section should be consulted on all proposed development (refer to **Figure 4**).

1.1.63 Flood risk within this zone is already high. The impacts of climate change may increase the frequency and/or magnitude of flood events, and must be taken into account when planning all new developments.

Proposed development should avoid the Rapid Inundation Zones described in section 3.4.

The Environment Agency must be consulted regarding all development within Flood Zone 3.

FP Policy Recommendation: Flood Zone 3b – Functional Floodplain

4.1.64 This zone comprises **land where water has to flow or be stored in times of flood,** either during floods with an annual probability of 1 in 20-years or where land is designed to flood in an extreme 1 in 100-year flood.

4.1.65 Only the water-compatible uses and the essential infrastructure listed in **Table 4.1,** which have to be there, should be permitted in this zone. It should be designed and constructed to: -

- remain operational and safe for users in times of flood;
- result in no net loss of floodplain storage;
- not impede water flows; and
- not increase flood risk elsewhere

4.1.66 Essential infrastructure in this zone **must** pass the Exception Test as explained in Section 5 and in **PPS25 (**Appendix 6, Section D9).

4.1.67 As part of the Exception Test, developers intending to build within Flood Risk Zone 3 should consult the Council's emergency planning officers at an early stage. Information regarding existing emergency procedures can be provided and advice given on the suitability of any proposed additions/amendments.

A FRA should accompany all development proposals in this zone.

4.1.68 Flood risk within this zone is already high. The impacts of climate change may increase the frequency and/or magnitude of flood events, and must be taken into account when planning all new developments.

The Environment Agency must be consulted regarding all development within Flood Zone 3.

4.1.b Guidance for Development Control and the Consideration of Planning Applications

4.1.69 This Section outlines recommended policies for Planning and Development Control purposes, assisting both planners and developers in the practical implementation of the policies contained within PPS25. It must be stressed that flood risk is a material planning consideration that must be taken into account when making a determination for planning permission.

4.1.70 Developers must assess whether any proposed development is likely to be affected by flooding and whether it will increase flood risk elsewhere in the catchment. Where flood risk is present, developers must satisfy the local planning authority that any flood risk will be successfully managed and provide details of proposed mitigation measures.

4.1.71 A Flood Risk Assessment must be submitted with any planning application where flood risk is an issue, regardless of its location within the Flood Zones. Additionally, all proposed development within Flood Zones 2 and 3 will require a FRA, regardless of size. The level of detail provided within a FRA will depend on the scale of the development and flood risks posed. The Environment Agency's Flood Risk Matrix **(Table 1.1, Appendix 7),** gives Standing Advice on the scope and extent of Flood Risk Assessments.

4.1.72 Development Control (DC) guidance has been prepared for development within the following flood risk zones, based on the EA's advice in **Table 1.1**: -

- DC Guidance: Flood Zone 1- (little or no risk)
- DC Guidance: Flood Zone 2 - (low to medium risk)
- DC Guidance: Flood Zone 3a(i) – (Non-functional floodplain at high risk of flooding, with 1 in 100-year standard of flood defence)
- DC Guidance: Flood Zone 3a(ii) - (Non-functional floodplain at high risk of flooding, with 1 in 50-year standard of flood defence)
- DC Guidance: Flood Zone 3a(iii) – (Non-functional floodplain at high risk of flooding, without an appropriate standard of flood defence)
- DC Guidance: Flood Zone 3b- (Functional floodplain at high risk of flooding)

DC Guidance: Flood Zone 1 (little or no risk of flooding)

4.1.73 Zone 1 is defined as having an annual probability of flooding of less than 1 in 1000-year. PPS25 recommends that there are no constraints on development due to river flooding.

4.1.74 Planning applications for major development proposals of 1 hectare or greater in Flood Zone 1 must be accompanied by a FRA. The FRA should identify opportunities to reduce the probability and consequences of flooding.

4.1.75 A FRA will also be required where the proposed development or change of use to a more vulnerable class may be subject to other sources of flooding or where the Environment Agency, Internal Drainage Board and/or other bodies have indicated that there may be drainage problems.

4.1.76 The FRA will be required to demonstrate how flood risk from all sources of flooding to the development itself and flood risk to others will be managed, taking the potential impacts of climate change into account, giving details of proposed mitigation measures. The Environment Agency's Standing Advice (FRA1/FRA2) outlines the level of detail required, which should reflect the scale and potential significance of the development.

If the FRA does not sufficiently address flood risk, the planning application should be refused.

4.1.77 As detailed in Appendix 7, the Environment Agency will need to be consulted as part of the planning process if any of the following apply: -

- proposed development is an operational development greater than 1 ha.
- the development lies within 8m of the bank top of a Main River
- the development lies within 8 m of the foot of a raised flood defence bank
- any temporary or permanent works which will restrict flows within an ordinary watercourse
- proposed culverting works of an ordinary watercourse.

The respective Internal Drainage Board must also be consulted with regard to any proposed development within their respective areas (see Figure 4). City of York Council's Drainage Section must be consulted on all applications.

DC Guidance: Flood Zone 2 (low to medium risk of flooding)

4.1.78 Zone 2 is defined as having an annual probability of flooding of between 1 in 100-year and 1 in 1000-year.

4.1.79 This zone is generally suitable for most developments, apart from highly vulnerable uses listed in **Table 4.1,** e.g. basement dwellings and essential civil infrastructure (fire/ police/ambulance stations). Proposed allocation for essential civil infrastructure within this zone must pass the Exception Test as explained in Section 5 and in PPS25, and should remain accessible and operational during a 1 in 1000-year flood.

4.1.80 **All planning applications in Flood Zone 2 must be accompanied by a FRA**. The FRA should identify opportunities to reduce the probability and consequences of flooding.

4.1.81 The FRA will be required to **demonstrate how flood risk from all sources of flooding to the development itself and flood risk to others will be managed**, taking the potential impacts of climate change into account, giving details of proposed mitigation measures. The Environment Agency's Standing Advice (FRA1-3) outlines the level of detail required, which should reflect the scale and potential significance of the development.

If the FRA does not sufficiently address flood risk, the planning application should be refused.

4.1.82 As detailed in **Appendix 7**, the Environment Agency must be consulted as part of the planning process if any of the following apply: -

- proposed development is an operational development greater than 1 ha.
- the development lies within 8m of the bank top of a Main River
- the development lies within 8 m of the foot of a raised flood defence bank
- any temporary or permanent works which will restrict flows within an ordinary watercourse
- culverting works of an ordinary watercourse are proposed.
- the site lies within a documented historic flooding area.

The respective Internal Drainage Board must also be consulted with regard to any proposed development within their respective areas (see Figure 4). City of York Council's Drainage Section must be consulted on all applications.

4.1.83 Specific points to consider for Zone 2: -

- Habitable floor levels to be 600mm above the 1 in 100-year flood level
- The development will be adequately defended against 1 in 100-year flooding without increasing the degree of flood risk to any third party
- Ultimate depth of water following breach or inundation– level of ground in relation to water level
- Flood resilience of buildings to minimise the damage if a flood exceeding the 1 in 100-year event occurs.

DC Guidance: Flood Zone 3a(i) developed areas at high risk of flooding which are currently defended to the minimum standard as defined by PPS25 (1 in 100-year protection).

4.1.84 As detailed in Section 3, **none of York's flood defences currently provide 1 in 100-year standard of protection.** Elvington will have 1 in 100-year protection by the autumn of 2007.

The water-compatible and less vulnerable uses of land in **Table 4.1** are appropriate in this zone.

The highly vulnerable uses in **Table 4.1** should not be permitted in this zone.

4.1.85 The more vulnerable and essential infrastructure uses in **Table 4.1** should only be permitted in this zone if the Exception Test is passed. Essential infrastructure, permitted in this zone, should be designed and constructed to remain operational and safe for users in time of flood.

4.1.86 When considering potential **development sites within Zone 3a(i), the Sequential and Exception Tests must be passed,** as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

4.1.87 **All planning applications in Flood Zone 3 must be accompanied by a FRA**. The FRA should identify opportunities to reduce the probability and consequences of flooding.

4.1.88 The FRA will be required to **demonstrate how flood risk from all sources of flooding to the development itself and flood risk to others will be managed**, taking the potential impacts of climate change into account, giving details of proposed mitigation measures. The Environment Agency's Standing Advice (FRA1-3) outlines the level of detail required, which should reflect the scale and potential significance of the development.

If the FRA does not sufficiently address flood risk, the planning application should be refused.

4.1.89 **As detailed in Appendix 7, the Environment Agency must be consulted as part of the planning process for all proposed developments,** the only exception being for extension less than 250m², unless the following applies: -

- the development lies within 8m of the bank top of a Main River
- the development lies within 8 m of the foot of a raised flood defence bank
- any temporary or permanent works which will restrict flows within an ordinary watercourse
- culverting works of an ordinary watercourse are proposed.
- the site lies within a documented historic flooding area.

The respective Internal Drainage Board must also be consulted with regard to any proposed development within their respective areas (see Figure 4). City of York Council's Drainage Section must be consulted on all applications.

4.1.90 Specific points to consider for Zone 3a(i): -

- The development will be adequately defended against 1 in 100-year flooding without increasing the degree of flood risk to any third party
- Ultimate depth of water following breach or inundation– level of ground in relation to water level
- Flood resilience of buildings to minimise the damage if a flood exceeding the 1 in 100-year event occurs.

DC Guidance: Flood Zone 3a(ii) Non-functional floodplain at high risk of flooding, - developed areas at high risk of flooding which are currently defended to the minimum standard for existing development as defined by Defra (50-year protection), but are not defended to the minimum standard for new development as defined by PPS25 (1 in 100-year protection).

The River Foss Zone

4.1.91 Flood cell B14 (refer to Figure 8) is the only zone in York that has the benefit of a large pumping station, at the Foss Barrier, to deal with high flood flows. The EA stated in November 2006, that overtopping of Ouse defences into the Foss Zone would have much less serious consequences than in any other areas in Zone 3.

The water-compatible uses of land in **Table 4.1** are appropriate in this zone.

4.1.91 The more vulnerable, less vulnerable and essential infrastructure uses in **Table 4.1** should only be permitted in this zone if the Exception Test is passed. Essential infrastructure permitted in this zone should be designated and constructed to remain operational and safe for users in time of flood

The highly vulnerable uses in **Table 4.1** should not be permitted in this zone.

Other areas behind existing flood defences

4.1.92 The remaining flood defences generally have only walls / embankments for protection. Although offering 1 in 50-year protection, the EA has stated that areas behind these defences have the following suitability: -

The water-compatible uses of land in **Table 4.1**are appropriate in this zone.

The highly vulnerable uses in **Table 4.1** should not be permitted in this zone.

4.1.93 The more vulnerable, less vulnerable and essential infrastructure uses in **Table 4.1** should only be permitted in this zone if the Exception Test is passed, **which will be more restrictive than in Flood Cell B14**. The essential infrastructure uses in **Table 4.1** should only be permitted in this zone if the Exception Test is passed. Essential infrastructure permitted in this zone should be designated and constructed to remain operational and safe for users in time of flood.

4.1.94 When considering potential **development sites within Zone 3a(ii), the Sequential and Exception Tests must be passed,** as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

4.1.95 **All planning applications Flood Zone 3 must be accompanied by a FRA**. The FRA should identify opportunities to reduce the probability and consequences of flooding.

4.1.96 The FRA will be required to **demonstrate how flood risk from all sources of flooding to the development itself and flood risk to others will be managed**, taking the potential impacts of climate change into account, giving details of proposed mitigation measures. The Environment Agency's Standing Advice (FRA1-3) outlines the level of detail required, which should reflect the scale and potential significance of the development.

If the FRA does not sufficiently address flood risk, the planning application should be refused.

4.1.97 **As detailed in Appendix 7, the Environment Agency must be consulted as part of the planning process for all proposed developments,** the only exception being for extension less than 250m², unless the following applies: -

- the development lies within 8m of the bank top of a Main River
- the development lies within 8 m of the foot of a raised flood defence bank
- any temporary or permanent works which will restrict flows within an ordinary watercourse
- culverting works of an ordinary watercourse are proposed.
- the site lies within a documented historic flooding area.

The respective Internal Drainage Board must also be consulted with regard to any proposed development within their respective areas (see Figure 4). City of York Council's Drainage Section must be consulted on all applications.

4.1.98 Specific points to consider for Zone 3a(ii): -

- The development will be adequately defended against 1 in 100-year flooding without increasing the degree of flood risk to any third party
- Ultimate depth of water following breach or rapid inundation– level of ground in relation to water level
- Flood resilience of buildings to minimise the damage if a flood exceeding the 1 in 100-year event occurs.

DC Guidance: Flood Zone 3a(iii) - Non-functional floodplain at high risk of flooding, without an appropriate standard of flood defence

4.1.99 This Zone, shown on **Figure 11**, comprises land with an annual probability of river flooding greater than 1 in 100-years. There is a high risk of flooding, as these areas have no flood defences and most are **known to have flooded in the past**. The current flood defences shown on **Figure 7** all offer at least the appropriate minimum standard as defined by Defra (1 in 50-year protection) and are in Zones 3a(i) or 3a(ii).

The water-compatible uses of land in **Table 4.1** are appropriate in this zone.

The highly vulnerable uses in **Table 4.1** should not be permitted in this zone.

4.1.100 The more vulnerable, less vulnerable and essential infrastructure uses in **Table 4.1** should only be permitted in this zone if the Exception Test is passed. The more vulnerable and less vulnerable uses should be restricted to redevelopment sites only, and does not apply to new build. Essential infrastructure–permitted in this zone should be designated and constructed to remain operational and safe for users in time of flood.

4.1.101 When considering potential **development sites within Zone 3a(iii), the Sequential and Exception Tests must be passed,** as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

4.1.102 Early contact with the Environment Agency is required to establish the viability of sites in this zone, as they have placed constraints on development in these high-risk areas within the historic flood outline to control any increase in the number of people introduced into the floodplain and put at risk of flooding.

The highly vulnerable uses in **Table 4.1** should not be permitted in this zone.

4.1.103 **All planning applications Flood Zone 3 must be accompanied by a FRA**. The FRA should identify opportunities to reduce the probability and consequences of flooding.

4.1.104 The FRA will be required to **demonstrate how flood risk from all sources of flooding to the development itself and flood risk to others will be managed**, taking the potential impacts of climate change into account, giving details of proposed mitigation measures. The Environment Agency's Standing Advice (FRA1-3) outlines the level of detail required, which should reflect the scale and potential significance of the development.

If the FRA does not sufficiently address flood risk, the planning application should be refused.

4.1.105 **As detailed in Appendix 7, the Environment Agency must be consulted as part of the planning process for all proposed developments,** the only exception being for extension less than 250m², unless the following applies: -

- the development lies within 8m of the bank top of a Main River
- the development lies within 8 m of the foot of a raised flood defence bank
- any temporary or permanent works which will restrict flows within an ordinary watercourse
- culverting works of an ordinary watercourse are proposed.
- the site lies within a documented historic flooding area.

The respective Internal Drainage Board must also be consulted with regard to any proposed development within their respective areas (see Figure 4). City of York Council's Drainage Section must be consulted on all applications.

4.1.106 Specific points to consider for Zone 3a(iii): -

- The development will be adequately defended against 1 in 100-year flooding without increasing the degree of flood risk to any third party
- Ultimate depth of water following breach or inundation– level of ground in relation to water level
- Flood resilience of buildings to minimise the damage if a flood exceeding the 1 in 100-year event occurs.

DC Guidance: Flood Zone 3b – Functional Floodplain

4.1.107 This zone comprises **land where water has to flow or be stored in times of flood,** either during floods with an annual probability of 1 in 20-years or where land is designed to flood in an extreme 1 in 100-year flood.

4.1.108 **Only the water-compatible uses and the essential infrastructure listed in Table 4.1, that have to be there, should be permitted in this zone**. It should be designed and constructed to:

- have emergency procedures in place during flood events
- result in no net loss of floodplain storage
- not impede water flows
- not increase flood risk elsewhere
- adequately defended against 1 in 100-year flooding without increasing the degree of flood risk to any third party
- provide flood resilience of buildings to minimise the damage if a flood exceeding the 1 in 100-year event occurs

4.1.108 Essential infrastructure in this zone should pass the Exception Test, as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

A FRA should accompany all development proposals in this zone.

4.1.109 Flood risk within this zone is already high. The impacts of climate change may increase the frequency and/or magnitude of flood events, and must be taken into account when planning all new developments.

4.1.110 The Environment Agency's Standing Advice (FRA1-3) outlines the level of detail required, which should reflect the scale and potential significance of the development.

If the FRA does not sufficiently address flood risk, the planning application should be refused.

4.1.111 **As detailed in Appendix 7, the Environment Agency must be consulted as part of the planning process for all proposed developments,** the only exception being for extension less than 250m², unless the following applies: -

- the development lies within 8m of the bank top of a Main River
- the development lies within 8 m of the foot of a raised flood defence bank
- any temporary or permanent works which will restrict flows within an ordinary watercourse
- culverting works of an ordinary watercourse are proposed.
- the site lies within a documented historic flooding area.

4.1.112 **The respective Internal Drainage Board must also be consulted with regard to any proposed development within their respective areas (see Figure 4). City of York Council's Drainage Section must be consulted on all applications.**

The Environment Agency must be consulted regarding all development within Flood Zone 3.

4.1.c General Drainage Guidance

4.1.113 The 2000 flood saw all the major becks and rivers flowing at full capacity, in each of the three river zones. Flooding affected 365 properties and threatened a further 5000. Consequently, the following policy should apply to **all new development / re-development,** irrespective of which flood zone it lays in: -

1. **Surface water flows from all sites should (where practicable) be restricted to the existing runoff rates (if a brownfield site) or agricultural runoff rates (if the site has no previous development).**

Notes: In some instances, there may be no flow from the site that discharges to a watercourse and the land may be waterlogged. Development of such a site will require the compensatory attenuation of flow elsewhere to maintain the status quo.

A maximum runoff rate of 1.4 l/s/ha is currently quoted to developers. However, it is recognised that this empirical figure may not be appropriate for all soil types and modeling carried out as part of the flood risk assessment specific to a particular development site may establish a different existing runoff from the site on which a design can be based and agreed.

Flow attenuation from new development is only practicable when surface water discharges exceed 4 l/s, as this is the minimum figure that flow-control devices such as Hydrobrakes can operate at, without increasing the possibility of blockages due to small orifice sizes. This flow can be produced for developments with impermeable areas exceeding 500m². Consequently, it is unworkable to limit runoff from development below this level.

2. **Surface water from developments shall not connect to combined drains or sewers, unless expressly authorised by Yorkshire Water.**

Note: This is to prevent overloading of the sewerage system and prevent unnecessary treatment of surface water. Some areas are wholly combined systems of drainage (e.g. city centre).

3. **All full planning applications shall have complete drainage details (including Flood Risk Assessments when applicable) included with the submission, to enable the assessment of the impact of flows on the catchment to be made.**

Note: This should be confirmed at plans processing stage and the application rejected when insufficient detail is provided, thus preventing the promotion of inappropriate development. This will also reduce the need for conditions related to drainage and provide clarity for enforcement purposes.

4. **Sustainable Urban Drainage (SUDS) methods of source control and water quality improvement should be utilised wherever possible for all new developments in the catchment.**

Notes: In accordance with Approved Document Part H of the Building Regulations 2000, the first option for surface water disposal should be the use of sustainable drainage methods (SUDS) which limit flows through infiltration e.g. soakaways or infiltration trenches, subject to establishing that these are feasible, can be adopted and properly maintained and would not lead to any other environmental problems. For example, using soakaways or other infiltration methods on contaminated land carries groundwater pollution risks and may not work in areas with a high water table. Where the intention is to dispose to soakaway, these should be shown to work through an appropriate assessment carried out under BRE Digest 365, carried out in

winter if possible - to prove that the ground has sufficient capacity to accept surface water discharge, and to prevent flooding of the surrounding land and the site itself.

The suitability of the use of soakaways and swales within York will be limited, due to the unsuitable clay ground encountered throughout most of the city. There should be a presumption that these will be unsuitable unless proven otherwise.

Should follow on with other options, if infiltration does not work, i.e. on site retention, sewers, watercourses as Part H

5. **Proposed flow balancing of storm water runoff shall be capable of storing a 1 in 100-year rainfall event, with no run-off into adjacent sites.**

Note: This is a requirement of Yorkshire Water for adoptable sewerage systems.

6. **Ground water / land drainage from proposed developments shall not be connected to public sewers and existing land-drainage systems should be maintained.**

Note: Yorkshire Water will not allow the connection of ground water to public sewers, to prevent hydraulic over-loading of the sewerage system and problems associated with siltation.

7. **Applications for smaller scale developments in relation to surface water drainage, which are part of larger sites that already have outline permission, must comply with any conditions that were applied to the larger site**

Note: This is to prevent a 'piecemeal' approach to SUD/drainage schemes. This will apply to both large-scale housing and industrial developments, where the drainage system should be designed "as a whole"

8. **Proposed development near to existing areas served by combined sewerage systems (typically pre-1930 terraced housing and inner-city) will need careful consideration with regards to additional hydraulic loading**

Note: Yorkshire Water should be consulted at an early stage for all developments over 10 dwellings or sites exceeding 0.5ha, as new connections to sewers suffering from under-capacity may result in exacerbation of any existing problems. The proposed site may also flood itself due to surcharge during intense summer storms.

4.2 Proposed Development within Zone 3

4.2.1 The High Risk Zone 3 is divided into 'non-functional floodplain' (3a), and 'functional floodplains' (3b), defined in PPS25 as "… land where water has to flow or be stored in times of flood ", as shown on **Figure 11**.

4.2.2 As detailed in Section 3, **none of York's flood defences currently provide 1 in 100-year standard of protection.**

4.2.3 Consequently, these "protected" Zone 3 areas are not generally suitable for new residential, commercial or industrial development, unless they pass the Exception Test, as explained in Section 5 and in PPS25 - Appendix 6, Section D9.

4.2.3 In order to assess which of the Zone 3 areas could be suitable for development (with mitigating measures), land use was used to delineate zones 3a and 3b within the high-risk zone. Zone 3a was further sub-divided, as described in Section 3.2.4.

4.2.4 **Figure 11** gives an indication of the scale of the residual risk, and identify where a more detailed site-specific study will be necessary when looking at a particular development allocation or application. In these high-risk areas, inundation-mapping tools should be used to fully explore the degree of the residual risk, and where appropriate used to test mitigation schemes. In some instances this detailed work may show that the specific site is not in the higher risk area, but demonstrates the precautionary approach taken in the SFRA.

Specific Comments on Development in High Risk Zone 3 Areas

River Ouse Zone

Holgate Beck

4.2.5 Due to the risk of failure of the West End / Leeman Road Embankment, with resultant rapid inundation from the river, no further development should be permitted in this area unless it passes the Exception Test, including a specific Flood Risk Assessment in line with Environment Agency requirements. Environment Agency proposals to rebuild / refurbish these defences by 2010 will restore the 1 in 100-year flood defence standard, removing this restriction.

Blue Beck

4.2.6 Blue Beck has 1 in 100-year protection from the River Ouse, but can flood behind the defences due to insufficient flood storage, which persists within the catchment. No further development should be permitted in this area unless it passes the Exception Test, including a specific Flood Risk Assessment, in line with Environment Agency requirements.

Bur Dyke

4.2.7 Breach of the flood embankment could affect 543 properties in the Clifton Green / Water Lane / Longfield Terrace areas, with resultant rapid inundation from the River Ouse. No further development is being permitted in this area unless it passes the Exception Test, including a specific Flood Risk Assessment, in line with Environment Agency requirements.

Marygate and North Street

4.2.8 Although classed as a "brownfield site", any re-development in these areas must pass the Exception Test, including a robust FRA, as it is in a high-risk rapid inundation zone.

Skeldergate and Queens Staith (B7), Kings Staith and South Esplanade (B15) and New Walk (B16)

4.2.9 No flood defences currently exists for these areas. As these areas are fully developed any re-development should consider flood resilience. The Environment Agency could provide new defences for this area by 2010, which would restore the 1 in 100-year flood defence standard, removing this restriction.

Environment Agency Policy on Future Development behind Flood Defences in York

4.2.10 "PPS25 now states that the appropriate standard of a defence for new development should provide protection against a 1 in 100 year flood for the lifetime of the development: the defences in the York area no longer offer this level of protection".

> 2) "With this in mind, the Agency is likely to object to development proposals behind the defences and within the historic flood outline, as we do not wish to see an increase in the number of people introduced into the floodplain and put at risk of flooding. In accordance with PPS25, all development proposals require an assessment of flood risk to be carried out. If having, carried out the sequential approach, your council support further development in these areas, all applications for new development must be supported by a Flood Risk Assessment confirming that the minimum appropriate standard of protection will be met, and how this will be achieved."

4.2.11 The Ouse Flood Risk Management Strategy Report (2006) reinforces this, and maintains that the "precautionary principle" in PPS25 should be followed. However, redevelopment of older industrial areas (brownfield) within Zone 3 will only be allowable if it passes the Exception Test, including appropriate flood risk assessments and the incorporation of flood resilience measures to protect against a 1 in 100-year flood.

River Foss Zone

4.2.12 **Flood cell B14 (refer to Figure 8) is the only zone in York that currently has the benefit of a large pumping station, at the Foss Barrier, to deal with high flood flows.** The EA stated in November 2006, that overtopping of Ouse defences into the Foss Zone would have much less serious consequences than in any other areas in Zone 3.

4.2.13 Any proposed developments must pass the Exception Test, including the provision of full Flood Risk Assessments, which should consider flood risk not only to development sites, but also to adjacent sites and elsewhere in the catchment.

4.2.14 The 2000 floods saw all the major becks flowing at full capacity, especially Tang Hall Beck and Osbaldwick Beck. The Foss Barrier was also running at full capacity. The James Street Traveller's site is particularly susceptible to flooding (3 times since November 2000).

4.2.15 Historically, the worst property flooding occurred during the 1982 floods, when no defences were in place. Consequently, 1 in 100-year flood levels will be over 400mm deeper than has ever been experienced in the past.

4.2.16 In summary, the flows from all new development in the Foss catchment should be restricted to the existing flow from the site (if a Brownfield site) or agricultural runoff rate if the site has no previous development.

River Derwent Zone

4.2.17 The 2000 floods saw all the major becks flowing at full capacity, especially Elvington Beck, which severely affected the village for nearly 3 weeks.

4.2.18 To prevent future flooding problems, all flows from all new development should be restricted to the existing flow from the site (if a Brownfield site) or agricultural runoff rate if the site has no previous development, especially flows to Elvington Beck.

Elvington village will have 1 in 100-year flood protection by Autumn 2007, following the completion of flood defence works.

5 The Sequential Test and Exception Test

5.0.1 This section provides detailed information on the Sequential Test and the Exception Test for the York Unitary Authority Area. This is considered below for both a Forward Planning and Development Control viewpoint.

5.1 The Sequential Test and Exception Test for Forward Planning

5.1.1 The following section gives detailed information relating to directing the location of future development including the allocation of sites in the York area, as regards the Sequential Test, the Exception Test, and the associated flood risk zones set out in **Table 4.2.**

The Sequential Test

5.1.2 The Sequential approach is a decision-making tool designed to ensure that sites at little or no risk of flooding are developed in preference to areas at higher risk, this is set out in paragraphs 2.10 of this SFRA and 16-17 of PPS25. In considering the allocation of sites in the Key Allocations DPD, the City of York Council will use the Sequential Test so that suitable land with a lower probability of flooding will be developed first.

The Exception Test

5.1.3 As highlighted in paragraphs 2.11 of this SFRA and 18-20 of PPS25, if, following the application of the Sequential Test, it is not possible or desirable for a development to be located in a zone with a lower probability of flooding, the Exception Test can be applied in some cases, as highlighted in **Table 4.2.** The Exception Test makes provision for sites that can be balanced against wider sustainability considerations and is designed to ensure that the flood risk posed to such sites is controlled and mitigated to an acceptable level. It should be noted that if the Exception Test cannot be satisfied then the site would not be permitted as part of the Key Allocations DPD and therefore not included in the LDF.

5.1.4 When undertaking an Exception Test the evaluation and consideration of the views from the Environment Agency are vital.

5.1.5 An Exception Test would comprise the following:

- The consideration and assessment of the criteria a-c below.

a) it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk. PPS25 states the benefits of the development should contribute to the Core Strategies Sustainability Appraisal. The objectives in **Table 5.1** set out the sustainability considerations which must be taken into account. These have been taken from the City of York Councils Core Strategy Sustainability Appraisal Scoping Report.

Table 5.1: Exception Test Sustainability Considerations

Headline Sustainability Objective
H1. To reduce City of York's Ecological Footprint
Environmental
EN1. Land use efficiency that maximises the use of Brownfield land
EN2. Maintain and improve a quality built environment and the cultural heritage of York and preserve the character and setting of the historic city of York
EN3. Conserve and enhance a bio-diverse, attractive and accessible natural environment
EN4. Minimise greenhouse gas emissions and develop a managed response to the effects of climate change
EN6. The prudent and efficient use of energy, water and other natural resources
EN7. Reduce pollution and waste generation and increase levels of reuse and recycling
Supplementary Objective (requires an additional objective**)**
EN5. Improve Air Quality in York
Social
S1. Preserve and enhance York's urban and rural landscapes and public open space
S3. Improve the health and well-being of the York population
S6. Accessibility to public recreational areas and leisure facilities for all
S7. Reduce the need to travel by private car
S8. Good access to and encourage use of public transport, walking and cycling
S9. A transport network that integrates all modes for effective non car based movements
S10. Quality affordable housing available for all
Supplementary Objective (requires an additional objective**)**
S4. Safety and security for people and property
S11. Social inclusion and equity across all sectors
Economic
EC1. Good quality employment opportunities available for all
EC2. Good Education and training opportunities which build skills and capacity of the population
EC3. Conditions for business success, stable economic growth and investment
Supplementary Objective (requires an additional objective**)**
EC4. Local needs met locally

b) the development should be on developable, previously-developed land or, if it is not on previously developed land, that there are no reasonable alternative sites on developable previously-developed land; and

c) a FRA must demonstrate that the development will be safe, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall. The requirements for a FRA can be found in Appendix 7. A site specific FRA will need to be undertaken before sites are included as allocations within the LDF. The level at which this FRA will be carried out will relate to the DPD under production fully reflecting the views of the Environment Agency.

5.2 The Sequential Test and Exception Test for Development Control

5.2.1 The following section gives detailed information for Development Control decisions in the York area, as regards the Sequential Test, the Exception Test, and the associated flood risk zones set out in **Table 4.2.**

The Sequential Test

5.2.2 The Sequential approach is a decision-making tool designed to ensure that sites at little or no risk of flooding are developed in preference to areas at higher risk, this is set out in paragraphs 2.10 of this SFRA and 16-17 of PPS25. Development control decisions are subject to the Sequential Test and, if necessary the Exceptions Tests at the planning application stage. **Table 5.2** below sets out the approach to apply these two tests, and **Table 5.3** is the checklist which is used by the Environment Agency to provide a framework for transparent demonstration of the application of the Sequential Test to planning applications.

The Exception Test

5.2.3 As highlighted in paragraphs 2.11 of this SFRA and 18-20 of PPS25, if, following the application of the Sequential Test, it is not possible or desirable for a development to be located in a zone with a lower probability of flooding, the Exception Test can be applied in some cases, as highlighted in **Table 4.2**. The Exception Test makes provision for sites that can be balanced against wider sustainability considerations and is designed to ensure that the flood risk posed to such sites is controlled and mitigated to an acceptable level. It should be noted that if the Exception Test cannot be satisfied then the planning application should be refused.

5.2.4 When undertaking an Exception Test the evaluation and consideration of the views from the Environment Agency are vital.

5.2.5 An Exception Test would comprise the following:

- The consideration and assessment of the criteria a-c below.

a) it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk. PPS25 states the benefits of the development should contribute to the Core Strategies Sustainability Appraisal. The objectives in **Table 5.1** set out the sustainability considerations which must be taken into account. These have been taken from the City of York Councils Core Strategy Sustainability Appraisal Scoping Report.

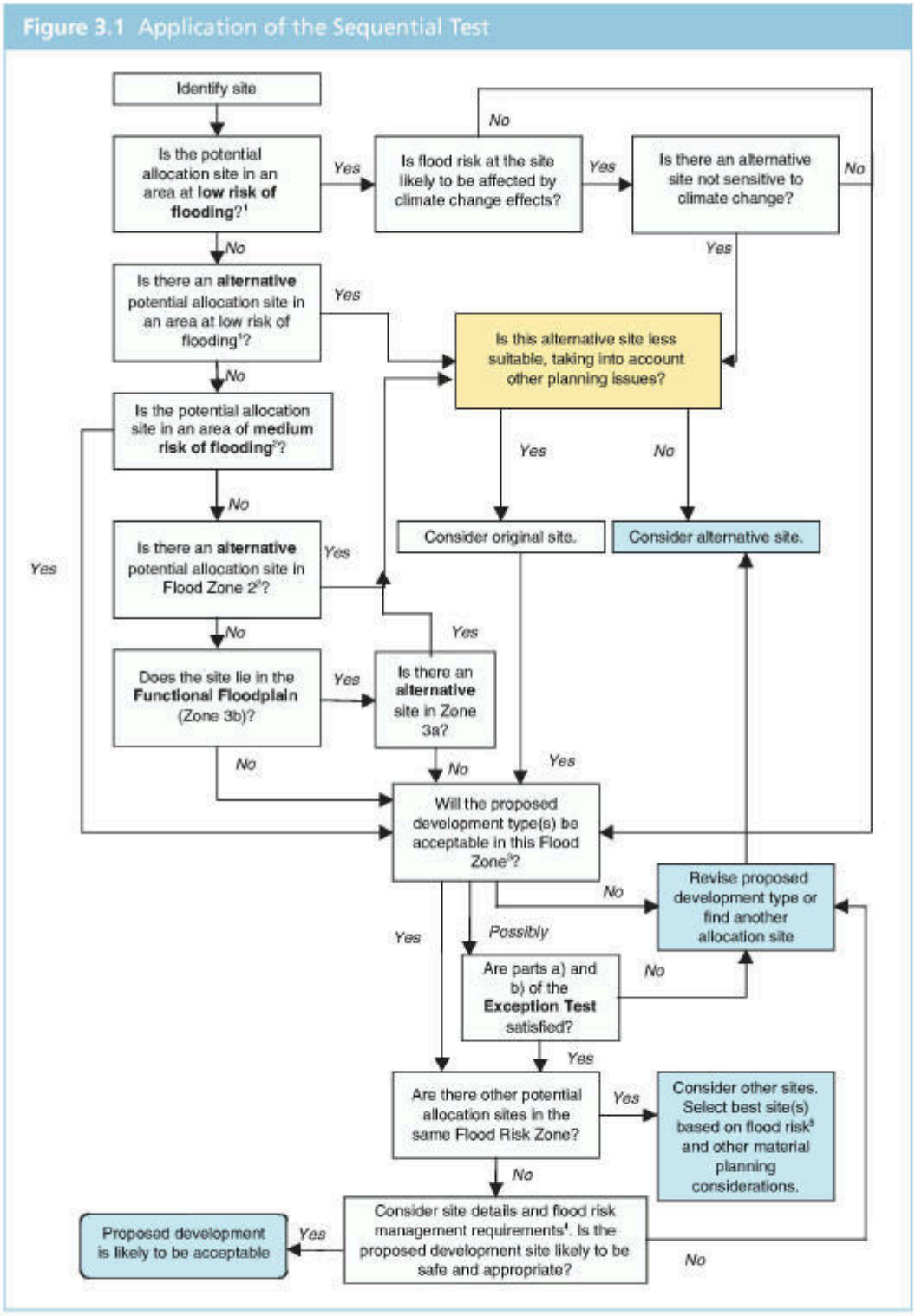
Table 5.1: Exception Test Sustainability Considerations

Headline Sustainability Objective
H1. To reduce City of York's Ecological Footprint
Environmental
EN1. Land use efficiency that maximises the use of Brownfield land
EN2. Maintain and improve a quality built environment and the cultural heritage of York and preserve the character and setting of the historic city of York
EN3. Conserve and enhance a bio-diverse, attractive and accessible natural environment
EN4. Minimise greenhouse gas emissions and develop a managed response to the effects of climate change
EN6. The prudent and efficient use of energy, water and other natural resources
EN7. Reduce pollution and waste generation and increase levels of reuse and recycling
Supplementary Objective (requires an additional objective**)**
EN5. Improve Air Quality in York
Social
S1. Preserve and enhance York's urban and rural landscapes and public open space
S3. Improve the health and well-being of the York population
S6. Accessibility to public recreational areas and leisure facilities for all
S7. Reduce the need to travel by private car
S8. Good access to and encourage use of public transport, walking and cycling
S9. A transport network that integrates all modes for effective non car based movements
S10. Quality affordable housing available for all
Supplementary Objective (requires an additional objective**)**
S4. Safety and security for people and property
S11. Social inclusion and equity across all sectors
Economic
EC1. Good quality employment opportunities available for all
EC2. Good Education and training opportunities which build skills and capacity of the population
EC3. Conditions for business success, stable economic growth and investment
Supplementary Objective (requires an additional objective**)**
EC4. Local needs met locally

b) the development should be on developable, previously-developed land or, if it is not on previously developed land, that there are no reasonable alternative sites on developable previously-developed land; and

c) a FRA must demonstrate that the development will be safe, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall. The requirements for a FRA can be found in Appendix 7.

Table 5.2: Application of the Sequential Test



Notes

1 Flood Zone 1 for fluvial and tidal flooding and with a low risk of flooding from other sources.
2 Flood Zone 2 for fluvial and tidal flooding and with a medium risk of flooding from other sources.
3 As defined by the Sequential Test.
4 Development to be safe and to not increase flood risk elsewhere. Required to pass part c) of the Exception Test, where applicable.
5 Including susceptibility to future climate change and residual flood risk.

(Development and Flood Risk: A Practice Guide Companion to PPS25 'Living Draft')

Table 5.3: Environment Agency checklist to provide a framework for transparent demonstration of the application of the Sequential Test to planning applications

Table 1.3 Environment Agency checklist to provide a framework for transparent demonstration of the application of the Sequential Test to planning applications

Question	Answer Yes/No	Sequential Test – passed or failed?
1. Is this application consistent in scale, development type and location, with a site allocation that has already been sequentially tested and included in the Local Development Document (LDD)?	If yes, state which allocation and the location in the development plan. **If the answer is 'No' go to Question 2.**	If the answer is Yes the Sequential Test has been passed – FINISH HERE
2. Does the application site fall within an area identified for 'windfall' development that has been agreed as part of the LDD in association with a Strategic Flood Risk Assessment (SFRA)?	If yes, state the location in the LDD. **If the answer is 'No' or there are no such areas identified in the LDD, go to Question 3.**	If the answer is Yes the Sequential Test has been passed – FINISH HERE
3. Does the LDD or background documents contain reasonably available, alternative site allocations that are situated in a lower flood risk zone?	If yes, state which allocation(s) and the location in the development plan. **If the answer is 'No' go to Question 4**	If the answer is Yes the Sequential Test has been failed – FINISH HERE
4. Does the development plan or background documents contain reasonably available, alternative site allocations that are within the same Flood Zone and subject to a lower probability of flooding *from all sources* as detailed by the SFRA?	If yes, state which allocation(s) and the location in the development plan.	**If the answer is No to Questions 3 *and* 4 the Sequential Test has been passed.** **If the answer is Yes to Question 4, the Sequential Test has been failed – FINISH HERE**

Note:
Refer to Environment Agency standing advice at environment-agency.gov.uk/planning for the full version of this table.

(Development and Flood Risk: A Practice Guide Companion to PPS25 'Living Draft')

City Development
City of York Council
9 St Leonards Place
York
YO1 7ET
Tel (01904) 551491
Email: citydevelopment@york.gov.uk

Local Development Framework Working Group

27th June 2007

Report of the Director of City Strategy

Open Space, Sport and Recreation Study – Evidence Base

Summary

1. The purpose of this report is to seek Member's approval of the City of York Council - Draft Open Space, Sport and Recreation Study (attached as Annex A to this LDF Working Group Report – Appendices to the City of York Council - Draft Open Space, Sport and Recreation Study are located in the Members Library), which has been prepared for the Council by open space consultants, PMP. The study will form the open space, sport and recreation part of the Evidence Base for the Local Development Framework.

Background

2. PPG17 (Planning For Open Space, Sport and Recreation) requires local authorities to undertake a robust assessment of the existing and future needs of their communities for open space, sports and recreational facilities. The Guidance requires local authorities to undertake audits of existing open space, sports and recreational facilities and states that audits should consider both the quantitative and qualitative elements of such facilities.

3. The intention of carrying out the assessments is to allow local authorities to identify specific needs and quantitative or qualitative deficits or surpluses of open space, sports and recreational facilities in their area. The assessments should form a starting point for establishing an effective strategy for open space, sport and recreation at a local level. The report only covers outdoor recreation facilities, not indoor built facilities. A typology of the open spaces is included in Annex B to this Report.

4. In view of the importance of carrying out an assessment of open space, consultants PMP were commissioned to carry out an Open Space, Sport and Recreation Study for York, in line with the requirements of PPG17. The Study as a whole will form an important part of the evidence base for the LDF, feeding into the Core Strategy and Allocations DPDs and the Area Action Plans for York North West and the City Centre.

5. The Study is to be prepared in two phases:

- phase one (which is the subject of this report) provides an analysis of existing provision, derives local standards based on consultation and best practice and makes strategic recommendations; and
- phase two will apply the provision standards which have been recommended in the first phase and identify areas deficient in accessibility, areas of quantitative deficiency or surplus and quality deficiencies on specific sites. The second phase will also draft policies and make recommendations for strategic priorities.

6. Phase one of the study has been completed in line with national policies, as required by PPG17, and is put forward for Member's approval in this report. Phase 2, which will follow after Members have approved the outcomes of Phase 1, will form further work, which will feed into the Core Strategy at the Preferred Options stage, but will also be of key importance to the Key Allocations and Proposals Map DPD and other DPD's to be produced in the future. It is intended that Phase 2 will commence almost immediately.

Headline Results from the Study

7. This first phase of the Study has identified the local need, audited local provision and suggested local provision standards for York. These local provision standards identify the quantity, quality and accessibility of each type of open space.

Quantity issues – key findings:

8. Quantity standards are set out in the report, which give recommendations for each typology, based on the quantity of open space per 1,000 population. These are derived from the assessment of the local community's perceptions of the adequacy of existing levels of provision.

9. The following table outlines the current provision, recommended provision and the proposed change in provision, based on ha per 1,000 population. These are shown for each typology. They are based on the outcomes of consultation and audit work undertaken by the consultants

Typology	Current provision (ha per 1,000 population	Recommended provision (ha per 1,000 population)	Change in provision (per 1,000 population)
Parks and Gardens	0.16	0.16	No change
Natural and Semi Natural Provision	1.58	1.59	Increase 0.01
Amenity Green Space	1.27	1.29	Increase 0.02
Provision for Children	0.05	0.07	Increase 0.02
Provision for Teenagers	0.0043	0.04	Increase 0.035
Outdoor sports Facilities	1.94	1.95	Increase 0.01

Allotments	0.29	0.31	Increase 0.02
Cemeteries, Churchyards and Green Corridors	N/A	N/A	N/A

Quality issues – key findings:

10. The consultants have made the following recommendations for each typology, based on visions that are reflective of the aspirations and expectations of the community , derived from local consultations. The quality of current provision is outlined within the Consultants report for each typology.

- **City Parks** (eg. Rowntree Park)*: "A welcoming, clean and litter free site providing a one-stop community facility which is safe and accessible to all and has a range of facilities and other types of open space within it. City Parks should be attractive, well designed and maintained, providing well-kept grass, flowers and trees, adequate lighting and other appropriate safety features, as well as suitable ancillary accommodation (including seating, toilets, litter bins and play facilities). Sites should promote the conservation of wildlife and the built heritage and provide links to the surrounding green infrastructure"*

- **Local Parks** (eg. Hull Road Park): *"All Local Parks should be a facility serving the immediate needs of local people for active recreation. They should provide a welcoming, clean and litter free environment. Maintenance should focus on providing well-kept grass, flowers and trees and encourage wildlife to flourish with the use of varied vegetation through appropriate management. Community Leisure Officers should work with other organisations and the community to provide a hub of interest, activities and local events. Good quality and appropriate ancillary facilities (play areas, litter-bins, dog-bins and benches) should be provided to encourage greater use. "*

- **Natural & Semi Natural provision:** "*A clean and litter free site with clear and obvious pathways that provide opportunities to link other open spaces together and where appropriate link to the outlying countryside. Sites should encourage wildlife conservation, biodiversity and environmental awareness and contain appropriate natural features. Litterbins, dog bins, benches and picnic areas should be provided where possible and there should be a clear focus on balancing recreational and wildlife needs, whilst ensuring public access. Community involvement through management, maintenance and promotion of these sites should be maximised. "*

- **Amenity Green Space:** "*A clean and well-maintained green space site that is accessible to all. Sites should have appropriate ancillary facilities (dog and litter bins etc), pathways and landscaping in the right places providing a safe secure site with a spacious outlook that enhances the appearance of the local environment and provides a safe area for young people to meet. Larger sites should be suitable for informal play opportunities and should be enhanced to*

encourage the site to become a community focus, while smaller sites should at the least provide an important visual amenity function."

- **Provision for Children:** *"A well designed clean site of sufficient size to provide a mix of well-maintained and imaginative formal equipment and an enriched play environment in a safe and convenient location. Equipped play spaces should be fun and exciting and should have clear boundaries with dog free areas and include appropriate ancillary accommodation such as seating, litter bins and toilets in the locality of larger sites. Sites should also comply with appropriate national guidelines for design and safety and safeguard residential amenity of neighbouring land users. The site should also be accessible to all".*

- **Provision for Teenagers:** *"A well designed high quality site that provides a meeting place for young people, encompassing the needs of all users with varied formal and informal equipment/space. The site should be located in a safe environment that is accessible to all, without compromising neighbouring land users. The focus should be on providing a well-maintained, clean and litter free area with appropriate lighting and shelter, promoting a sense of community ownership. Facilities should be developed through extensive consultation with the local community at all stages of the process"*

- **Outdoor Sports Facilities:** *"A well-planned, clean and litter free sports facility that sits in harmony with its surroundings. The site should be well maintained to an appropriate match play standard, with good grass coverage and well-drained quality surfaces. Appropriate ancillary facilities should be provided at sites with consideration given to providing toilets, changing rooms, car parking, and meeting places. The site should be managed appropriately ensuring community safety and provide a local amenity that is close to people's homes, encouraging residents to participate in physical activity"*

- **Allotments:** *"A well-kept, well managed and secure site that encourages sustainable development, bio-diversity, healthy living and education with appropriate ancillary facilities (eg provision of water and toilets) to meet local needs, clearly marked pathways and good quality soils. The site should be spacious providing appropriate access for all and should be promoted to ensure local community awareness".*

- **Cemeteries and churchyards***: "A clean and well-maintained site providing long-term burial capacity, an area of quiet contemplation and a sanctuary for wildlife. Sites should have clear pathways, varied vegetation and landscaping and provide appropriate ancillary accommodation (e.g. facilities for flowers litter bins and seating.) Access to sites should be enhanced by parking facilities and by public transport routes where possible, particularly in urban areas"*

- **Green Corridors:** *"Linear open spaces should be clean and litter-free, safe and convenient corridors with clear pathways, linking major residential areas, open spaces, urban centres, leisure facilities and employment areas, that*

promote sustainable methods of transport. Appropriate ancillary facilities such as litter, dog bins and seating in appropriate places with signage to and within the sites should be featured to encourage access for all. The corridor should also seek to encourage biodiversity and wildlife habitats, enabling the movement of both wildlife and people between open spaces, linking in specifically with natural areas of open space."

Accessibility issues – key findings:

11. Accessibility standards are set out in the form of a maximum walking time, where walking is considered to be the most appropriate mode of transport, and a drive time where driving would be appropriate. The standards reflect the Council's strategic vision of promoting travel by mean other than by car.

    The following table gives a maximum walking time to travel to the type of open space.

Typology	Maximum walking time to travel to facility
Parks and Gardens	City Parks: 20 minute walk time Local Parks: 15 minute walk time
Natural and Semi Natural Provision	15 minute walk time
Amenity Green Space	5 minute walk time
Provision for Children	10 minute walk time
Provision for Teenagers	15 minutes walk time
Outdoor Sports Facilities	15 minute walk time to local outdoor sports (grass pitches, tennis and bowling greens): 20 minute drive (8km) to synthetic turf Pitches and golf courses.
Allotments	15 minute walk time
Cemeteries, Churchyards and Green Corridors	N/A

Implications for the Local Development Framework

12. The Open Space, Sport and Recreation Study as a whole will form a vital part of the evidence base for the emerging Local Development Framework. It will form the starting point for establishing an effective planning approach to open space, sport and outdoor recreation. Setting robust local standards based on assessments of need of existing facilities and will enable the Local Authority to redress quantitative and qualitative deficiencies in the Local Authority area through the planning process.

13. The LDF Core Strategy will set the overall strategic approach to addressing any deficiencies in open space provision. To do this the consultation at the Issues and Option stage will explore the importance attached to quantity, quality and accessibility within the context of the different types of open space

identified. Within this broader policy the LDF Allocations DPD may seek to address specific deficiencies through the allocation of sites.

14. Phase one of the Study will directly inform the Core Strategy 'Second Issues and Options Report', and will be critical in terms of considering what criteria should be taken into account when determining the overall principles for addressing deficiencies in open space. It will inform the discussion of key issues relating to open space by providing information on needs and providing an assessment of the quantity, quality and accessibility of open space, as well as recommending local standards.

15. Phase two of the Study will provide the detailed information required to inform the Preferred Options of the Core Strategy and the Issues and Options Allocations DPD and the Area Action Plans for York North West and the City Centre.

Consultation

16. Public consultation has formed a key aspect of the Open Space, Sport and Recreation Study, with a number of public consultation exercises, focussing on a number of target audiences, at various stages in the Assessment. These are summarised below:

- questionnaires sent to a sample of 5,000 residents across the City;
- questionnaires to Parish Councils;
- school pupil IT based questionnaire survey;
- consultation with Council officers;
- consultation with interest groups / external agencies, sports clubs / outdoor leisure providers, adjacent local authorities;
- workshops with local interest groups;
- advertising via local media;
- drop in sessions / exhibitions at Parliament Street, and Tescos Askham Bar & Clifton Moor;
- officer attendance and / or displays at Ward Committee meetings;
- response text messaging service;
- e-mail response service.

17. The above consultation methods have helped ensure that a significant proportion of residents and interest groups / organisations across the City have been involved in the consultation process. This has enabled PMP to clearly identify the local need for open space.

Options

18. Members have two options relating to the Open Space, Sport and Recreation Study:

Option 1: To approve the Open Space, Sport and Recreation Study, attached as Annex A, for publication as part of the Local Development Framework evidence base;

Option 2: To seek amendments to the Open Space, Sport and Recreation Study through recommendations of the LDF Working Group, or request further work from PMP.

Analysis

19. The Open Space, Sport and Recreation Study forms an important part of the evidence base for the LDF. It will be the primary evidence used to guide the policy issues regarding open space provision in the City. Given the significance of this Study it is important that it is approved as part of the evidence base to support the progress of the Local Development Framework, both at the Core Strategy Issues and Options 2 stage and also within subsequent detailed policy documents.

20. Delaying the approval of the Open Space, Sport and Recreation Study could delay the Core Strategy Issues and Options 2 consultation, which is due to take place during July and August. Consequently, there would be a significant risk that this would delay further stages of the LDF, since the Core Strategy will provide the overall planning policy framework to inform the other Development Plan Documents.

21. Members are therefore asked to approve Phase one of the Open Space, Sport and Recreation Study, as part of the evidence base for the Local Development Framework.

Corporate Priorities

22. The option outlined above accords with the following Corporate Strategy Priorities:

- Improve the actual and perceived condition and appearance of the city's streets, housing estates and publicly accessible spaces;

- Improve the health and lifestyles of people who live in York, in particular among groups whose levels of health are the poorest.

Implications

23. The following implications have been assessed.

- **Financial** – *None.*

- **Human Resources (HR)** – *None.*

- **Equalities** - *None*

- **Legal** - *None*
- **Crime and Disorder** - *None*
- **Information Technology (IT)** - *None*
- **Property** - *None*
- **Other**

Risk Management

24. There are no identified risks in this proposal

Recommendations

25. That Members:

(i) approve, subject to the recommendations of this Working Group, the proposed Open Space, Sport and Recreation Study, included as Annex A to this report, for publication as part of the Local Development Framework evidence base.

Reason: So that the Open Space, Sport and Recreation Study can be used as part of the Local Development Framework evidence base.

(ii) delegate to the Director of City Strategy, in consultation with the Executive Member for City Strategy, the making of any other necessary changes arising from the recommendation of the LDF Working Group, prior to its publication as part of the Local Development Framework evidence base.

Reason: So that any recommended changes can be incorporated into the Open Space, Sport and Recreation Study.

Contact Details

Author:	**Chief Officer Responsible for the report:**
Author's name	***Chief Officer's name***
John Roberts	*Damon Copperthwaite*
Assistant Development Officer	*Assistant Director of City Development and*
City Development	*Transport*
(01904) 551464	*(01904) 551448*
	Report Approved √ **Date** *18/6/07*

Specialist Implications Officer(s) *None*

Wards Affected: *List wards or tick box to indicate all* **All** √

For further information please contact the author of the report

Background Papers:

None.

Annexes

Annex A): City of York Council – Draft Open Space, Sport and Recreation Study (Main Report)

Annex B): Typology of open space:

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Evidence Base

City of York

LDF

Local Development Framework

Open Space, Sport and Recreation Study

Main report

June 2007

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Introduction and background

The study

1.1 During November 2006, City of York Council (the Council) appointed PMP to undertake an assessment of the City's open space, sport and recreation facilities, together with an assessment of local needs and the production of local standards.

1.2 This report is intended to outline the proposed local standards, so that they can be scrutinised by the Council's LDF working group. The agreed local provision standards will form an important element of the Council's LDF and will directly inform the Core Strategy Issues and Options.

1.3 Once the local standards have been finalised, further work will be undertaken to develop a comprehensive Open Space Strategy to ensure that the provision of open space, sport and recreation facilities will be adequate to meet present and future needs across the City of York. The strategy will ensure that priorities for the future and resource allocation are based on local need and aspirations and that a strategic approach to the provision of open space, sport and recreation facilities is adopted.

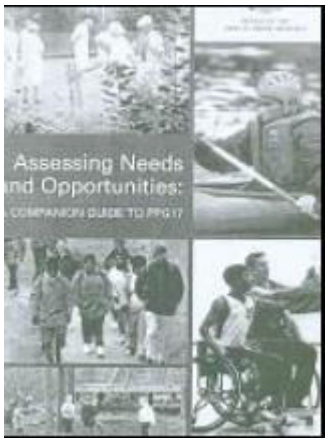
1.4 The study is underpinned by several key objectives, specifically:

- to enable the establishment of an effective approach to planning open space, sport and recreation facilities
- to set robust local standards based on assessments of local needs
- to facilitate improved decision making as part of the Development Control process
- to guide / steer / influence S106 negotiations

1.5 The study is undertaken in accordance with the requirements of the updated PPG17, and its Companion Guide published in September 2002.

National Policy Context: Planning Policy Guidance Note (PPG) 17: Planning for Open Space, Sport and Recreation & Assessing Needs and Opportunities - PPG17 Companion Guide

1.6 PPG17 states that local authorities should undertake robust assessments of the existing and future needs of their communities for open space, sport and recreational facilities (paragraph 1).



1.7 The document also states that local authorities should undertake audits of existing open space, sports and recreational facilities. The information gained from the assessment of needs and opportunities should be used to set locally derived standards for the provision of open space, sport and recreational facilities in their areas" (paragraph 7). The Government believes that national standards are inappropriate, as they do not take into account the demographics of an area, the specific needs of residents and the extent of built development.

1.8 The policy guidance sets out priorities for local authorities in

terms of:

- assessing needs and opportunities – undertaking audits of open space, sport and recreational facilities
- setting local standards
- maintaining an adequate supply of open space
- planning for new open space.

1.9 The companion guide sets out the process for undertaking local assessments of needs and audits of provision. It also:

- indicates how councils can establish the needs of local communities and apply provision standards
- promotes a consistent approach across varying types of open space.

1.10 PMP and the Council have followed the recommendations of PPG17 throughout the study and the full methodology used is set out in Section 2.

1.11 This report provides justification for the local standards recommended, detailing current provision and setting out local community need.

1.12 Following scrutiny by the Council's LDF working group. The agreed local provision standards will be applied to current provision across the City of York, enabling the identification of geographical priorities and site-specific issues. This will form the basis of the open space strategy and this is explained in further detail in Section 12.

Why public open space?

1.13 PPG 17 states that well designed and implemented planning policies for open space, sport and recreation are fundamental to delivering broader Government objectives, which include:

- supporting an urban renaissance
- supporting a rural renewal
- promotion of social inclusion and community cohesion
- health and well being
- promoting more sustainable development.

1.14 Open space, sport and recreation provision in City of York has an important role to play in supporting the implementation of these objectives.

Function and benefits of open space

1.15 Open spaces provide a number of functions within the urban fabric of cities, towns and villages, for example, the provision for play and informal recreation, a landscaping buffer within and between the built environment and/ or a habitat for the promotion of biodiversity.

1.16 Each type of open space has different benefits, which depend on the type of open space, for example allotments for the growing of own produce, play areas for children's play and playing pitches for formal sports events. Open space can additionally perform a secondary function, for example outdoor sports facilities have an amenity value in addition to facilitating sport and recreation.

1.17 There is a need to provide a balance between different types of open space in order to meet local aspirations. An understanding of local expectations and aspirations is therefore central to the effective provision of open space.

1.18 Changing social and economic circumstances, changed work and leisure practices, more sophisticated consumer tastes and higher public expectations have placed new demands on open spaces. Open spaces can also promote community cohesion, encourage community development and stimulate partnerships between the public and private sector. The provision of open spaces and recreation provision is key to an ideal, sustainable and thriving community.

1.19 It is widely recognised that the provision of high quality 'public realm' facilities such as parks and open spaces can assist in the promotion of an area as an attractive place to live, and can result in a number of wider benefits. These wider benefits are highlighted in Appendix A.

Local features and demographics

1.20 The City of York is one of 21 authorities making up the Yorkshire and Humber region. While the majority of the population reside within the urban area surrounding the historic City centre, there are many small rural and semi rural settlements providing a diverse variety of green space.

1.21 The City is a central destination for residents living in outlying villages as well as for people living in surrounding districts. As one of the UK's most frequently visited tourist destinations, provision of green space is important not only to local residents, but to the many visitors that flock to the City.

1.22 As a consequence of the location of York in close proximity to Leeds, the pressures on land for development, traffic and other activity are high. Protection of greenspace (to ensure there is sufficient to meet local needs) is consequently of high importance.

1.23 The changing demographics of the City of York will further enhance the development pressures on land, with the current population of almost 183,000 expected to increase by 21% by 2029. This additional population will not only increase the pressure on land for development, but will also ensure that demand for various open space, sport and recreation facilities increases. This population increase is significantly higher than the anticipated national average.

1.24 Analysis of the profile of the population in York highlights a greater proportion of residents over 65, and lower proportions of residents under 14 than the national average. There is also a higher proportion of young adults aged 20 – 24, reflective of the student population and a lower proportion of households with children in comparison to the national average. This suggests that local aspirations may differ from other areas, and it is essential to ensure that the open space, sport and recreation facility stock meets the needs of residents across the age spectrum.

1.25 The Index of Multiple Deprivation (ODPM, 2004) is a measure of multiple deprivation and enables the comparison of deprivation from authority to authority. When looking at the overall rank of each Local Authority in the country, the City of York is ranked

219th out of 354 areas where a rank of 1 is the most deprived in the country and a rank of 354 is the least deprived.

Structure of the report

1.26 This report is split into 12 sections. Section 2 sets out the methodology for undertaking the study and Section 3 sets out the strategic context to provide the background and context to the study.

1.27 Sections 4-11 relate to each of the typologies identified within the scope of the report. Each typology chapter sets out the strategic context to that particular typology, the recommended quantity, quality and accessibility standards and a short summary of key issues emerging. This information is intended to inform the LDF Core Strategy Issues and Options consultation.

1.28 The next steps, following the adoption of the recommended local standards are outlined in brief in section 12, the Way Forward. This subsequent work will inform further, more detailed stages in the LDF such as the Council's Key Allocations DPD.

1.29 A number of appendices are referenced throughout the report. These appendices supplement the information provided within the main body of the text and provide further detail of work undertaken.

Undertaking the study

Introduction

2.1 As highlighted in Section one, this study was undertaken in accordance with PPG17 and its Companion Guide. This companion guide suggests ways and means of undertaking such a study and emphasises the importance of undertaking a local needs assessment, as opposed to following national trends and guidelines. The four guiding principles in undertaking a local assessment are:

(i) local needs will vary even within local authority areas according to socio-demographic and cultural characteristics

(ii) the provision of good quality and effective open space relies on effective planning but also on creative design, landscape management and maintenance

(iii) delivering high quality and sustainable open spaces may depend much more on improving and enhancing existing open space rather than new provision

(iv) the value of open space depends primarily on meeting identified local needs and the wider benefits they generate for people, wildlife and the environment.

2.2 PPG17 recognises that individual approaches appropriate to each local authority will need to be adopted as each area has different structures and characteristics.

2.3 The findings of this report and the methodology used to reach these conclusions are therefore specific to the aspirations and expectations of residents of City of York Council.

Types of open space

2.4 The overall definition of open space within the government planning guidance is:

"all open space of public value, including not just land, but also areas of water such as rivers, canals, lakes and reservoirs which offer important opportunities for sport and recreation and can also act as a visual amenity".

2.5 PPG17 identifies ten typologies of open space including nine types of open space and one category of urban open space. It states that assessments of needs and audits of existing open space and recreation facililities should include all of these typologies, or variations of it.

2.6 Table 2.1 overleaf sets out the types of open space that have been included within this study and provides a brief definition of each typology.

2.7 In line with guidance set out in PPG17, all accessible open space, sport and recreation facilities across the city have been included within the study, regardless of their ownership or specific management arrangements. To the effect that open space is provided by a variety of parties, investment to raise standards will have to come from various sources and not just the City of York Council.

2.8 Within the City of York boundaries, there are four large areas of land amounting to over 320 hectares in total, which are today known as the 'Strays'. The Strays are the remains of much greater areas of common land which the hereditary Freemen of the City had, since time immemorial, the right to graze cattle. Originally, each Stray was controlled and managed for the exclusive benefit of the Freemen resident in their

Ward. However, by 1858, the Freemen of all the Strays agreed that, in exchange for a small annual payment to them, the City should in future administer their Stray 'as an open space for the benefit and enjoyment of the citizens of York for all time'. For the purposes of this study, the strays have been classified into the typology of open space into which they most appropriately fit according to their primary purpose. The importance of these sites and the restrictions placed on their use will however be considered specifically during the application and interpretation of the local standards.

Table 2.1 – Typologies of Open Space

Type	Definition	Primary Purpose
City Parks	Includes urban parks, formal gardens and country parks. PPG17 states that large or high quality spaces or facilities tend to attract users from a wider area than small or poor quality ones and tend to have a higher local profile. This gives rise to the concept of a hierarchy of provision. For this reason parks and gardens in York have been split into "City Parks" and "Local Parks" in order to discover whether there are different local aspirations in relation to higher and lower tier parks. City Parks are therefore defined as: • strategically significant • large effective catchment • accessed by public transport or car • large and more expensive • planning using national data and strategies	• informal recreation • community events.
Local Parks	As with City Parks, the local parks category includes urban parks, formal gardens and country parks. In comparison to city parks, local parks are defined as: • locally significant • smaller effective catchment • accessed on foot or bicycle • smaller/cheaper • planned using local data/ views • local objectives • voluntarily managed	• informal recreation

Natural and Semi-Natural Greenspaces	Includes publicly accessible woodlands, urban forestry, scrub, grasslands (e.g. downlands, commons, meadows), wetlands and wastelands.	• wildlife conservation, • biodiversity • environmental education and awareness.
Amenity Greenspace	Most commonly but not exclusively found in housing areas. Includes informal recreation green spaces and village greens.	• informal activities close to home or work • children's play • enhancement of the appearance of residential or other areas
Provision for Children	Areas designed primarily for play and social interaction involving children below aged 12. While it is recognised that a wide variety of opportunities for children exist (including play schemes and open spaces not specifically designed for this purpose), as per PPG17, this typology considers only those spaces specifically designed as equipped play facilities.	• Children's play
Provision for young people	Areas designed primarily for play and social interaction involving young people aged 12 and above. While it is recognised that a wide variety of opportunities for young people exist (including youth clubs and open spaces not specifically designed for this purpose, as per PPG17, this typology considers only those spaces specifically designed for use by young people eg: • teenage shelters • skateboard Parks • BMX tracks • Multi Use Games Areas.	• activities or meeting places for young people
Outdoor Sports Facilities	Natural or artificial surfaces either publicly or privately owned used for sport and recreation. Includes school playing fields. These include: • outdoor sports pitches • tennis and bowls • golf courses • athletics • playing fields (including school playing fields) • water sports.	• facilities for formal sports participation
Allotments	Opportunities for those people who wish to do so to grow their own produce as part of the long-term promotion of sustainability, health and social inclusion. May also include urban farms. This typology does not include private gardens.	• growing vegetable, fruit and flowers (drop root crops)
Cemeteries & Churchyards	Cemeteries and churchyards including disused churchyards and other burial grounds.	• burial of the dead • quiet contemplation
Green Corridors	Includes towpaths along canals and riverbanks, cycleways, rights of way and disused railway lines.	• walking, cycling or horse riding • leisure purposes or travel • opportunities for wildlife migration.

The geographical area

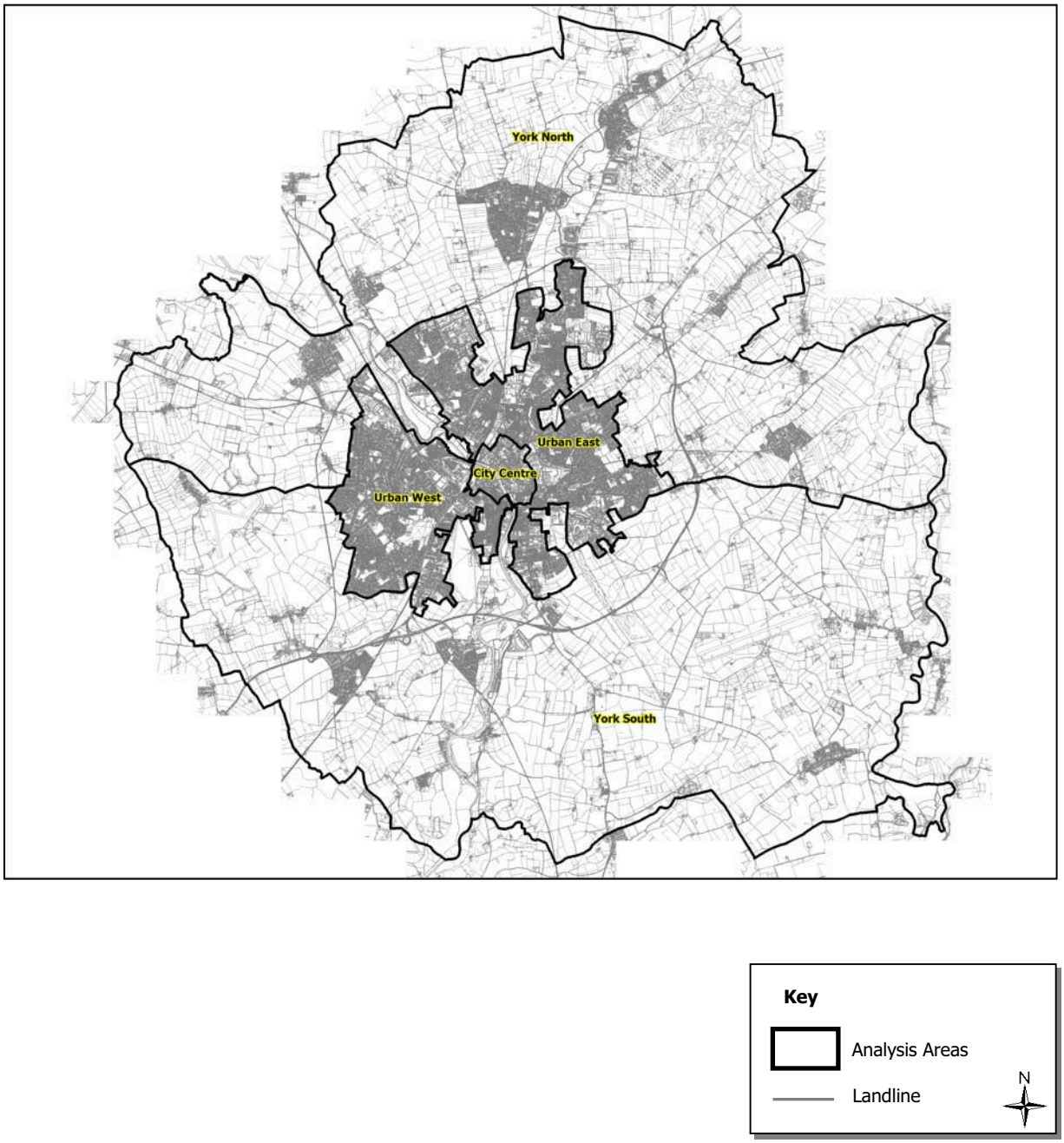
2.9 In order to analyse how the views of residents living in different areas of the City differ natural boundaries were used to divide the authority into five areas. This is in line with the approach identified in PPG17, which suggests the use of boundaries such as rivers and main roads to identify specific geographic areas.

2.10 This approach ensures that the findings of the local needs assessment can be analysed spatially and also provides a broad indication of the distribution of open spaces across the authority boundaries. Although these areas were used as a basis for the consultation programme and standard setting only, they nevertheless provide a useful starting point for understanding the provision of open space within the City of York. The areas (and the boundaries used to define these areas) are (See Figure 2.2):

- City Centre (as defined by the City centre boundary on the local plan map)
- Urban East
- Urban West
- York North
- York South.

2.11 Following adoption of the local standards, the application of the accessibility standard will enable analysis and interpretation of the distribution of open spaces without reference to the analysis area in which the site is located.

Figure 2.1 - Analysis Areas



PPG 17 – 5 step process

2.12 The PPG17 Companion Guide sets out a five step logical process for undertaking a local assessment of open space. This report covers steps 1 to 3 as set out below. Following agreement of the local standards, steps 4 and 5 will be undertaken, which will lead to the production of a open space strategy.

2.13 Although presented as a linear process below, in reality, steps 1 and 2 were undertaken in parallel.

2.14 The 5 step process is as follows:

- Step 1 – Identifying Local Needs
- Step 2 – Auditing Local Provision
- Step 3 – Setting Provision Standards
- Step 4 – Applying Provision Standards
- Step 5 – Drafting Policies – recommendations and strategic priorities.

Our process

2.15 The following steps detail how the study has been undertaken in accordance with PPG17.

Step 1 - Identifying local needs

2.16 In order to identify local needs, a series of consultations were carried out including:

- household questionnaires
- ward committee meetings
- neighbourhood drop in sessions
- interest group workshops
- IT Young People Survey
- consultation with external agencies
- internal one-to-one consultations with Council officers.

2.17 Background is provided on each of the key elements of the consultation in the paragraphs that follow.

Household survey

2.18 The household survey provides an opportunity for a number of randomly selected households to comment on provision, quality and accessibility of open space, sport and recreation facilities as well as being given the opportunity to comment on any site-specific issues.

2.19 5000 questionnaires were distributed to households across City of York to capture the views of both users and non-users of open spaces. Officers at the Council

provided a database of addresses from the electoral register and PMP then randomly selected 5,000 addresses across the five analysis areas. Residents who responded were included in a prize draw.

2.20 Random distribution of questionnaires to a geographically representative sample (based on the populations living in each of the identified analysis areas) of households across the authority ensures that representatives from all age groups, ethnic groups and gender were given the opportunity to participate. In order to promote an even response rate across ages and gender, residents with the next birthday were asked to complete the questionnaire. A copy of the household survey and accompanying covering letter can be found in Appendix B.

2.21 735 postal surveys were returned, providing a statistically sound sample that can be used to assume responses for the remaining population within City of York. Obtaining more than 400 responses means that the results are accurate to +/- 5% at the 95% confidence interval. This means that if 70% of the survey sample said that they think that the quality of parks and gardens is good, we can be 95% confident that had we interviewed the entire population of City of York the results would have been between 65% and 75%.

2.22 Specific questions in the household questionnaire directly input into the standard setting process, for example, whether residents consider there to be sufficient provision of each typology of open space and the reason for their views. The responses therefore provide a statistically sound basis for the setting standards process, enabling full justification and robust evidence to reinforce decisions taken.

Ward Committee Meetings

2.23 A poster display and information leaflet was provided at all ward committee meetings during February 2007. The leaflet provided information regarding the project and included contact details for attendees at sessions to provide feedback. Several questionnaires were returned from attendees at ward committees and many residents provided feedback via e mail, postal letter or telephone call.

2.24 Some ward committee meetings were attended by a Council Officer who provided more detailed background on the study verbally.

Neighbourhood drop in sessions

2.25 Neighbourhood drop in sessions were held in three locations across City of York, specifically:

- Mobile Exhibition Unit, Parliament Street, City Centre
- Tesco, Stirling Road, Clifton Moor Centre
- Tesco, Tadcaster Road, Askham Bar.

2.26 These sessions were advertised to the public via the local press and intended to provide an informal opportunity to residents of the local area to give their views on open space, sport and recreation issues across the City. Local interest groups were also formally invited to the sessions. The drop in sessions were well attended by both residents and tourists and the key issues arising from discussions feed directly into the recommended local standards.

Workshops

2.27 Workshops provide key stakeholders with the opportunity to become involved in the study, resulting in information and views on the quality, quantity and accessibility of open space, sport and recreation facilities from an informed viewpoint.

2.28 Three workshop sessions / discussion forums were held with key stakeholders identified by the Council in the Statement of Community Involvement. All workshops involved a variety of stakeholders. Following an introduction and presentation from PMP, these sessions were interactive, enabling and encouraging people to give their opinions on the quality, quantity and accessibility of open space sites across the City. Groups invited to the workshops included:

- Friends Groups
- Sports Clubs
- External Agencies
- Allotment Society Secretaries
- Providers of existing open spaces
- Representatives of older residents of York.

2.29 A full list of invited groups can be found within Appendix C. The key findings and themes emerging from the workshops contribute both to the recommended local standards and provide an overview and understanding of community views and perceptions.

IT Young People Survey

2.30 Consultation with young people and children is traditionally difficult, however it is important to understand the views of this large sector of the community.

2.31 Two questionnaires were therefore posted on the internet and all schools within the City of York boundaries were notified of the website address and asked to encourage their pupils to complete the questionnaires. One questionnaire was intended for pupils of a primary school age and one was designed for young people of secondary school age.

2.32 The level of response to the surveys was pleasing; with 300 responses received from primary school aged children and 239 from young people attending secondary schools.

2.33 The information obtained through the distribution of these questionnaires is instrumental in the development of the local standards.

External Agencies Questionnaire

2.34 Questionnaires were distributed to key regional and local external agencies with the primary purpose of obtaining the viewpoint of key stakeholders and ensuring that the recommended local standards dovetail with local and regional priorities.

2.35 Many external agencies also attended the workshops, which provided further opportunities for discussion.

Internal officers

2.36 Internal consultations with Council officers were undertaken in order to understand the work, focus and key priorities of the Council and to provide a detailed strategic and practical overview.

Step 2 - Auditing local provision

2.37 A comprehensive audit of local provision was undertaken, building on information already held by the Council and using a variety of other sources including:

- existing GIS information
- Local Plan maps and proposals maps
- existing documents, strategies and reviews
- aerial photography
- landline / Mastermap data
- local knowledge
- site visits.

2.38 A total of 620 sites were identified across the City of York during the audit process. Each site was classified into the relevant typology according to it's primary purpose.

2.39 Site assessments were then carried out to all sites identified through the audit process. Site assessments provided an opportunity to cross check the audit database and the classifications of sites, as well as enabling an assessment of the quality, quantity and accessibility of each site.

2.40 A meeting was held with Council officers to discuss the audit and ensure that it was complete and accurate.

2.41 Site assessments were undertaken using a matrix enabling comparisons between sites in the same typology and across typologies. For consistency purposes, all sites were assessed by the same person. Sites were rated against the following categories:

(i) accessibility

(ii) quality

(iii) wider benefits.

2.42 The site assessment process resulted in an overall quality and accessibility score for each site in addition to ratings for each individual factor. A full list of sites and their scores can be found in appendix D. The site assessment matrix can be found in appendix E.

Step 3 - Setting provision standards

2.43 PPG17 advocates that planning policies for open space, sport and recreation facilities should be based upon local standards derived from a robust assessment of local need.

2.44 Key themes emerging from consultations in addition to the findings of the open space audit and site assessments were therefore used as a basis to determine provision standards for each type of open space in terms of quality, quantity and accessibility. The local standards therefore directly represent the local needs and expectations of residents of City of York Council.

2.45 The methods used to determine standards are outlined in brief below. The full justification for each recommended standard for City of York Council, following this process can be found in Appendices F and G and H.

2.46 The application of these robust local standards based on assessments of need and existing provision will form the basis for addressing quantitative and qualitative needs through the planning process.

2.47 The application of local standards should consider the future requirement for open space (based on future population projections) as well as the current level of provision. Population projections have been taken from the 2004 subnational population projections. Future demand is projected up to 2029 in line with the core strategy.

Quantity

2.48 The open space audit enables an understanding of the quantity of provision of each type of open space in each area of the city. The collection of this level of detail enables the calculation of the provision of each type of open space per 1000 population. This information is provided within typology specific sections 4 – 11, and is also summarised within Appendix I.

2.49 In order to ensure that any standards set are reflective of local community needs and opinions, key themes emerging from consultations in each geographical area relating to the quantity of each type are analysed. The key issues for each type of open space are summarised within sections 4 – 11 and further detail is provided within Appendices F, G and H. Local standards are subsequently set taking into account the current level of provision compared to the perceived community need.

2.50 The overall aim of the quantity assessment is to:

- provide an understanding of the adequacy of existing provision for each type of open space
- establish areas suffering from deficiency of provision of each type of open space; and
- provide a guide to developers as to the amount of open space expected in conjunction with new development.

2.51 Provision standards should then be applied, in conjunction with accessibility and quality standards to determine shortfalls, surpluses and priority areas for investment and improvement. This will form the next stage of work and will be the basis of the greenspace strategy.

2.52 Table 2.2 below summarises the process undertaken to set local quantity standards.

Table 2.2 – The key stages of setting local quantity standards

Process Stage	Methodology
National Standards	Analysis of any existing national standards for each typology. These are usually provided by national organisations e.g. National Playing Fields Association for playing pitches. It is important to ensure that national standards are taken into account as part of determination of local standards.
Existing Local Standards	Consideration of existing local standards for each typology that are currently applied by City of York Council. These include standards set out in the Local Plan and in other strategies and documents.
Current Provision (per 1,000 population)	Assessment of the current quantity of provision
Benchmarking	Figures detailing actual provision and subsequent local standards set by PMP within other green space and open space projects to provide a comparison benchmark when setting local standards.
Consultation (household survey)	Consideration of the findings of the household survey with regards the quantity of provision for each type of open space. This analysis provides a robust indication (at an authority wide 95% confidence level) of public perception of the existing level of provision of all different types of open spaces.
Consultation Comments (Quantity)	PPG17 indicates that where local provision is regarded as inadequate it is important to establish why this is the case. A feeling of deficiency can sometimes be due to qualitative issues of existing open space sites rather than actual quantity issues. It is therefore important to assess findings of both the household survey, and the more subjective consultations including workshops, IT young people survey and neighbourhood drop in sessions in order to gain a thorough understanding of local community need and perception.
PMP Recommendation	PMP recommendation of a local standard. The standard is based on an assessment of the local community need and perceptions of the adequacy of existing levels of provision.
PMP Justification	Full justification for the recommended local standard based on qualitative and quantitative consultations are provided for each typology.

Accessibility

2.53 Accessibility is a key assessment of open space sites. Without accessibility for the public the provision of good quality or good quantity of open space sites would be of very limited value. The overall aim of accessibility standards should be to identify:

- how accessible sites are
- how far people are willing to travel to reach open space; and
- areas that are deficient in provision (identified through the application of local standards).

2.54 Similar to quantity standards, accessibility standards should be derived from an understanding of the community views, particularly with regards to the maximum distance that members of the public are willing to travel.

2.55 Distance thresholds (i.e. the maximum distance that typical users can reasonably be expected to travel to each type of provision using different modes of transport) are a very useful planning tool especially when used in association with a Geographical Information System (GIS). PPG17 encourages any new open space sites or enhancement of existing sites to be accessible by environmentally friendly forms of transport such as walking, cycling and public transport. There is a real desire to move away from reliability on the car.

2.56 Accessibility standards are set in the form of a distance in metres where walking is considered to be the most appropriate mode of travel, and a drive time where driving to the open space site would be more appropriate.

2.57 Table 2.3 overleaf outlines the key stages in setting local accessibility standards.

2.58 The site assessments also provide an indication of accessibility at each specific site, taking into account the entrance to the site, transport to the site and information and signage.

Table 2.3 – Key stages in setting accessibility standards

Process Stage	Methodology
National Standards	Analysis of any existing accessibility standards for each typology.
Existing Local Standards	Consideration of existing local standards for each typology that are currently applied. These include standards set out in the Local Plan and in other strategies and documents.
Benchmarking	Figures detailing local standards set by PMP within other green space and open space projects to provide a comparison benchmark when setting local standards.
Consultation (household survey)	Consideration of the findings of the household survey with regards the distance expected to travel to each type of open space and the 75% threshold level. The use of the 75% threshold level is consistent with recommendations in PPG17– it represents the distance that 75% of the population is willing to travel and is used to ensure that extreme

	responses are discounted.
Consultation Comments (Accessibility)	Findings of qualitative consultations regarding access to open space sites and the distances people expect to travel to reach open space sites.
PMP Recommendation	PMP recommendation for a local accessibility standard. The standard is based on an assessment of the local community need and perceptions of the adequacy of existing levels of provision.
PMP Justification	Full justification for the recommended local standard based on consultations and local expectations are provided for each typology.

Quality

2.59 Quality and value of open space are fundamentally different and can sometimes be completely unrelated. An example of this could be:

- a high quality open space is provided but is completely inaccessible. Its usage is therefore restricted and its value to the public limited; or
- a low quality open space may be used every day by the public or have some significant wider benefit such as biodiversity or educational use and therefore has a relatively high value to the public.

2.60 The overall aim of a quality assessment should be to identify deficiencies in quality and key quality factors that need to be improved within:

- the geographical areas of the city
- specific types of open space.

2.61 All sites assessed were given a score for a range of factors including:

- cleanliness and maintenance
- security and safety
- vegetation
- ancillary accommodation.

2.62 These scores are then weighted (multiplied either by 3, 2 or 1) to reflect the perceived importance of the factors. Factors which are given higher weightings (e.g. cleanliness and maintenance – 3) are perceived to be the most important and to have the largest impact on the quality of the site. Factors with a higher weighting will therefore influence the total score more than factors with lower weightings.

2.63 Scores for each factor, taking into account the weighting, can then be translated into a percentage or quality index. Where the site assessor considered a particular factor to be “not applicable”, the percentage does not take account of this factor and the overall score is therefore not biased by these factors.

2.64 The quality standards set as part of the study are intended as an aspirational vision that reflects what the community want. The vision should be applied to existing open spaces in addition to providing a benchmark when designing and creating new areas of open space. These visions are reflective of the aspirations and expectations of the community derived from local consultations.

2.65 The key steps to setting a quality vision are set out in Table 2.4 overleaf:

Table 2.4 – Setting a quality vision

Process Stage	Methodology
National Standards	Analysis of any existing qualitative standards for each typology.
Existing Local Standards	Consideration of existing local standards for each typology that are currently applied. These include standards set out in the Local Plan and in other strategies and documents.
Consultation (household survey)	Consideration of the findings of the household survey with regards the key quality features expected in each type of open space and consideration of the key issues experienced at existing open space sites
Consultation Comments (Quality)	Findings of qualitative consultations regarding the importance of different quality features at each site, in addition to problems experienced at current sites used
PMP Recommendation	PMP recommendation for a local quality vision. The standard is based on an assessment of the local community need and the key features that people like to see for each different type of open space.
PMP Justification	Full justification for the recommended local standard based on consultations and local expectations are provided for each typology.

2.66 The site assessment matrices (which can be found in Appendix E) completed for the open spaces across the City provide a score for quality, site access and an assessment of any wider benefits such as educational benefits.

2.67 The application of the process for each typology, along with the agreed benchmark score can be found in typology specific Sections 4 – 11.

The way forward

2.68 The next steps will be outlined in Section 12.

Strategic context

3.1 This strategic review summarises the strategic context for open space, sport and recreation facilities on a national, regional and local scale.

3.2 As indicated, Planning Policy Guidance Note 17 and the Companion Guide, Assessing Needs and Opportunities are the key overarching documents (see Section 1) to shape this study. They reflect a recognition from the Government of the wider benefits derived from the provision of open space, sport and recreation facilities, including;

- supporting an urban renaissance
- supporting a rural renewal
- promotion of social inclusion and community cohesion
- health and well being
- promoting sustainable development.

3.3 In addition to PPG17, there are numerous other national documents and agencies that shape the strategic context to open spaces, sport and recreation facilities across the country and as such influence the provision of facilities and the findings of this report.

3.4 Appendix J sets out the national strategic context, including Living Spaces: Cleaner, Safer Greener which was produced by the ODPM in 2002 and led to the creation of CABE Space, a national government agency which has the overall aim *"to bring excellence to the design, management and maintenance of parks and public space in towns and cities".*

3.5 The following sets out the regional and local strategic context for City of York considering overarching documents and their relationship to this study only. Documents specific to one type of open space will be reviewed within typology specific Sections 4 – 11.

Document Reviewed	Summary	Links to Open Space, Sport and Recreation Study
Yorkshire and Humber Plan – Regional Spatial Strategy (Consultation Draft December 2005)	The RSS sets out a vision for the future of the Yorkshire and Humber Region, the key objectives to aim for and strategic themes to indicate how the objectives will be achieved. The importance of open spaces is identified within the core approach of the strategy. Specific references include: • "open spaces have a vital role to play. Parks, squares, greens and wildlife areas can all help create a stronger and more attractive identity – with more opportunities for leisure and recreation, increased biodiversity and healthier lifestyles" • "open spaces within settlements, all have a strong influence on the character and distinctiveness of many of the Region's towns" and • "it is important that valuable habitats and open spaces are retained within settlements and that a vibrant mix of land uses is maintained". Policy ENV11 within the RSS focuses on Health and Recreation and further supports the importance of sport and recreation with references to: • safeguarding and enhancing facilities for sports and recreation • increasing activity rates and opportunities to participate in sport and recreation. Measured by increasing participation by 1% per year.	The City of York LDF must be in general conformity with the RSS – and must also help to deliver the regional strategy. This open space, sport and recreation study will provide strategic direction for the City of York Council in the delivery of improvements in the greenspace infrastructure, linking with both the aims and objectives of the LDF and the RSS. Policies relating to green space in the City of York LDF will be supported by this Green Space, Sport and Recreation Study.
Our Region, Our Health (2004)	The report aims to support the Yorkshire and Humber regional framework for health, providing recommendations and suggestions for action both to improve health and to reduce inequalities. The report highlights the comparatively poor quality of health of people living within the Yorkshire and Humber region, noting particularly the high levels of preventable ill health, long term illness and premature deaths. Key areas contributing to this poor health including alcohol abuse, smoking, poor diet, sedentary lifestyle and stress are highlighted, and specific recommendations relating to each area are discussed. Links between housing, education, community safety, economic generation and health are also explored. The report and associated recommendations reinforce the importance of physical activity. Recommendations of	Priorities emerging from this open space report, and subsequent improvements to the quality and quantity of facilities may have a significant impact on levels of activity, and therefore consequently on demand for open space, sport and recreation facilities in future years.

Document Reviewed	Summary	Links to Open Space, Sport and Recreation Study
	particular relevance to this open space, sport and recreation study include: • promote the benefits of physical activity on a regional basis • create a regional strategic partnership to ensure a co-ordinated approach to attract and retain more public and private sector investment in physical activity • implement regular monitoring including levels of smoking, diet and physical activity • focus investment on increasing physical activity in the region • develop a coordinated approach to attract and retain more public and private investment in physical activity.	

Document Reviewed	Summary	Links to Open Space, Sport and Recreation Study
Yorkshire Plan for Sport	The Yorkshire Plan for Sport sets out the regional context based on the key objectives formulated through Game Plan. The main regional priorities outlined in the plan are to: • improve health and wellbeing • increase participation • improve levels of performance • widen access • create stronger and safer communities • improve education. As a consequence of this adopted plan, the Council has the responsibility of becoming a partner agency in the delivery of these priorities ensuring that the framework of the Yorkshire Plan for Sport filters through into local sport and leisure strategy planning. Good quality pitch provision will be essential in implementing the plan. The apparent national and regional 'bottom up' approach to sports development requires a general improvement in grass roots and community facilities. It helps young people to succeed in life and develop close links between schools and sports clubs, creating a better and more positive local community.	The open space, sport and recreation study will provide a detailed understanding of existing provision and the needs and aspirations of local residents. This understanding, alongside the development of key priorities will help the Council to deliver improved sporting infrastructure and meet the aims and objectives of the Yorkshire Plan for sport locally.
City of York Development Control Local Plan (2005)	The Local Plan provides a clear local framework to guide and promote development where it is needed, and protect the quality of York's unique historic, natural and built environment. The Local Plan aims to ensure there is a balance between development, conservation and other concerns such as sustainability and the environment. Achieving sustainable development is at the forefront of the planning agenda and is the key vision of the Plan. Although the Local Plan will be superceded by the Local Development Framework, it remains the document against which all developments will be assessed at the current time. Several policies relate specifically to open space, sport and recreation within the plan: • Policies NE1 to NE7 consider the protection and enhancement of biodiversity across the City and ensure that there is balanced consideration given to nature conservation against the need for development. The plan states that considerable weight will be given to the protection of designated sites. • Policy NE2 prevents development where it is	The Local Plan guides and controls development of the City of York and the local area as whole. The protection of existing open spaces, and the designation of sites as potential new open space sites highlights the importance of greenspaces within York. This study will inform and support the revision of policies and the future policy direction for greenspaces across the city. The study will also enable the prioritiisation of areas where new open spaces are required and highlight open spaces which are of high value to the local community and / or wildlife and should be protected

Document Reviewed	Summary	Links to Open Space, Sport and Recreation Study
	deemed that it would be harmful to river corridors or wetlands. Likewise, policy NE5a prevents development which would be harmful to designated local nature reserves. Policy NE8 specifically protects green corridors from development • Policies L1 to L4 consider the provision and protection of leisure and recreation facilities within the City, with policy L1a setting out sites allocated for new leisure provision and policy L1d allocating new sites for parks. Existing sites are protected from development through policy L1b. • Policy L1c considers the provision of open space in new developments, detailing that developments above 2500m2 will be expected to include contributions towards open spaces in line with: - 0.9ha per 1000 population amenity greenspace - 1.7ha per 1000 population sports pitches - 0.7ha per 1000 population provision for children. • Policy L2 prevents against the loss of allotment sites unless it can be proven that they are surplus to requirements.	protected.

Document Reviewed	Summary	Links to Open Space, Sport and Recreation Study
Local Development Framework	Alongside the Regional Spatial Strategy, the Local Development Framework will form the "development plan" for the City of York and as highlighted, will supersede the policies in the Local Plan. The Core Strategy is currently at the Issues and Options stage. Following this, preferred options will be identified and formulated into policies to guide future development.	In order for a Local Development Framework to be considered well founded, the strategies / policies / allocations must be based on a robust and credible evidence base. This study represents an up-to-date local audit and needs assessment of open space, sport and recreation facilities on which to base associated planning policies in the LDF.
Without Walls – York Community Strategy 2004 - 2024	The City of York Community Strategy outlines how the quality of life can be improved across the City covering a wide range of economic, social and environmental issues. The strategy identifies seven key themes specifically: • The Safer City – to be a safe city with a low crime rate, and to be perceived as such by residents and visitors • The Healthy City – to ensure that residents enjoy healthy lifestyles through the promotion of healthy living and easy access to health care services • A City of Culture – to build a culture that welcomes and inspires visitors and presents opportunities for all • The Thriving City – to support the progress of existing businesses and encourage development of new business to ensure a flourishing economy and low unemployment rate • The inclusive City – to ensure that all residents and visitors can take part in life in the city • The Learning City – to ensure that all those that live and work in the city have the skills to play an active role in society • The Sustainable City – ensure that the city has a quality built and natural environment with a modern and integrated transport scheme. The strategy outlines a range of actions required to achieve each of the above objectives. Those of particular relevance to this open space, sport and recreation study include: • providing alternative social and recreational	Open space, sport and recreation facilities will be essential in the delivery of several of the key objectives and actions within this strategy, in particular with regards to the creation of a safer, healthy and sustainable city. This study will ensure that facilities of the right type, quality and in the right location will be provided.

Document Reviewed	Summary	Links to Open Space, Sport and Recreation Study
	activities for young people to enjoy • develop a healthy lifestyle strategy • increase participation in sport, play and active lifestyles • maximise the opportunities created by the presence of the river through the inauguration of the annual Festival of the Rivers • ensure the appraisal of open space informs future priorities for the development of green spaces and the policies set out within the Local Development Framework.	

Document Reviewed	Summary	Links to Open Space, Sport and Recreation Study
Corporate Strategy – 2006 - 2009	The Corporate Strategy sets out 13 priorities, which will be delivered between 2006 and 2009. The priorities focus on key areas which are important locally and nationally and link with those priorities set out in the Community Strategy. Priorities which are particularly relevant to the provision of open space, sport and recreation facilities include: • improving the actual and perceived condition of the citiies' streets and open spaces • improving the health and lifestyles of resident s in York.	The open space, sport and recreation study will be essential in the delivery of several of the key objectives and actions within this strategy. The study will provide detailed baseline information regarding open spaces which should be prioritised for quality improvement and will also analyse the adequacy of the exising provision of sport and recreation facilities as well as infiormal recreation opportunities, identifying areas for improvement.
Local Transport Plan 2006 - 2011	The Local Transport Plan targets reduced congestion and improved accessibility, air quality and safety. The plan highlights that if no action is taken to address these issues, traffic levels in the city will increase by 27 per cent in the next 15 years alone. The strategy reflects the direction of, and is integrated with, the emerging Regional Spatial Strategy (RSS) and Regional Economic Strategy (RES). The delivery of a revoluntionary public transport service is central to the aims and objectives of the plan. Increasing the levels of walking and cycling is also one of the key targets of the plan, and the provision of new off road cycling and walking routes is designated as a priority for funding during the first five years of implementation of the plan. The plan builds upon the key successes of the previous plan, which include achieving the status of the UK's top cycling city in 2004 and achieving walking targets four years ahead of schedule. The promotion of healthy living, and a reduction on the reliance of cars are key themes throughout the transport plan. The overriding themes of the plan include: • tackling congestion • improving accessibility for all • safer roads • improving air quality • improving culture, health and well-being • enhancing education and the local economy.	The local transport plan highlights the key priorities for improvement of transport and travle within York over the next 5 years. It is essential that open space, sport and recreation facilities are accessible to the local community by public transport, cycleway and foot in order to ensure the effective delivery of the local transport plan. Provision of an effective green corridor network should help to reduce the reliance on cars and ensure more residents travel on foot. This study will provide detailed information regarding the current accessibility of open spaces, and identify areas where residents are outside of an appropriate distance threshold.

Document Reviewed	Summary	Links to Open Space, Sport and Recreation Study
	The plan sets out a series of key actions intended to deliver these themes. Those of particular relevance to this open space, sport and recreation study include: • development of new cycle and pedestrian routes which link to the local public transport network • improvements to the perceived and actual safety of cycle and pedestrian routes • improving public spaces through better maintenance of physical and cultural assets, such as footpaths, cycle routes, and public transport infrastructure • encouraging more physical activity by improving the walking and cycling networks • the plan targets a 15% increase on the number of residents walking into the city centre, and a 1% increase in those cycling to work and 3% on those cycling into the City for recreation.	

Summary and conclusions

3.6 The provision of open spaces, sport and recreation facilities contributes to the achievement of wider governmental objectives such as social and community cohesion, urban renaissance and promoting a healthy and enjoyable life.

3.7 Many organisations are willing to work in partnership together to manage and develop existing open spaces and share similar aims and objectives e.g. protecting, enhancing and maximising usage and nature conservation value of open spaces.

3.8 Points emerging from the strategic review that are integral to the development of this green space assessment in York include:

- increasing participation in sport and active recreation is a key component of national policies. This is highlighted through the regional delivery plan and is also a focal point of the community plan and corporate strategy. This assessment will enable future priorities to achieve this objective.

- improvements to the perception of the safety and quality of open spaces will ensure that the community continue to value the spaces provided and that they contribute positively to the culture of the City of York as a whole. This study will guide future improvements and ensure that open space sites effectively meet local need.

- increasing access to local open space, sport and recreation sites is inherent in the achievement of the objectives of the local transport plan where there is a focus on increasing walking and cycling. Increased access will also ensure that residents are able to lead healthier lifestyles. This study will provide a detailed insight into areas outside of acceptable distance thresholds to different open space types.

3.9 In summary, this review of strategic documents highlights the regional and local importance of open space within York and how the delivery of open space, sport and recreation facilities can meet wider aims and objectives. This local needs study and resulting strategy will also contribute to the delivery of aims and objectives of national and regional agencies.

3.10 The context of specific local documents, policies and strategies will be highlighted within the individual typology sections where the relevant policies apply.

Parks and Gardens

Definition

4.1. This type of open space includes urban parks, formal gardens and country parks that provide opportunities for various informal recreation and community events, within settlement boundaries.

4.2. Parks are often a mix of facilities with different types of open space, eg children's play facilities, sport pitches and wildlife areas. For classification purposes and within the scope of this study, the different open spaces have been separated by the PPG17 typology. Large green areas, footpaths, lakes and less dense woodland will provide the park area (total hectares) and the other facilities will be calculated separately under their own classification.

4.3. Parks provide a sense of place for the local community, help to address social inclusion issues within wider society and also provide some form of structural and landscaping benefits to the surrounding local area. They also frequently offer ecological benefits, particularly in more urban areas. Many parks also provide local pitches and facilities providing a further opportunity to increase participation

4.4. The provision of high quality Local Parks can be instrumental in the achievement of increased participation targets, ensuring that all residents are able to access local facilities for informal recreation – particularly walking. The Survey reveals that walking is the most popular recreational activity for people in England. Over 8 million adults aged 16 and over (20%) did a recreational walk for at least 30 minutes in the last 4 weeks. Local Park facilities provide key opportunities for residents to participate in informal physical activity.

4.5. Larger facilities tend to attract users from a wider catchment than the smaller parks and tend to have a higher local profile. The main strategic and publicly free to access park within York is Rowntree Park located in the centre of York. The household survey reveals that this park is extremely well used.

Figure 4.1 – Rowntree Park

Strategic context and consultation

Strategic context - national

4.6. A national survey commissioned by Sport England, the Countryside Agency and English Heritage was undertaken during 2003, studying the provision of parks within England. The aims of the survey were to establish:

- how many adults in England use parks?
- what activities people take part in when visiting parks?
- the reasons why people visit particular parks
- the levels of satisfaction with the amenities on offer
- why non-users do not use parks?

4.7. The definition of a park used in the survey was very broad and included both formal provision such as town parks, country parks, recreation grounds and also less formal provision such as village greens and common land.

4.8. The findings of the study were:

- just under two thirds of adults in England had visited a public park during the previous 12 months
- there is a distinct bias in the use of parks by social groups, with almost three quarters of adults from the higher social group visiting a park compared with only half of those from the lower social group
- people from black and ethnic minority communities also have relatively low participation as well as those adults with a disability
- over 8 in 10 adults who had used a park in the previous 12 months did so at least once a month during the spring and summer with almost two thirds visiting a park at least once a week, and women tended to visit parks more often than men
- it is estimated that the 24.3 million adults who use parks make approximately 1.2 billion visits to parks during the spring and summer months and 600 million visits during the autumn and winter months – a total of 1.8 billion visits a year
- the most popular type of park visited was an urban or City Park.

4.9. There are a number of regional and local documents that refer to the importance of parks and garden – see Table 4.1 overleaf.

Table 4.1 –Strategic Context – regional and local

Document Reviewed	Summary of key strategic drivers	Links to open space, sport and recreation study
Yorkshire and Humber Plan – Regional Spatial Strategy (Consultation Draft December 2005)	Given the planning background to this study, of utmost importance is the Yorkshire and Humber Plan. Policy ENV10 states that development plans will maintain and enhance a range of landscapes and related assets of regional, sub-regional and local importance including historic landscapes, parks and gardens. The achievement of this objective will be monitored against the area of local authority managed parks and open spaces areas with a current Green Flag Award. The City of York currently has three awards for Glen Gardens, Rowntree Park and West Bank Park.	The site assessments undertaken as part of this Open Space, Sport and Recreation Assessment should be used by the Council when targeting further improvements to existing parks and gardens.
City of York Council – Development Control Local Plan	Local Plan policy L1D: New Public Parks, Green Spaces, Woodlands and Wetlands. This policy identifies a number of locations as areas for recreation opportunity as part of comprehensive developments to improve the quality of the local environment.	This study will form an important evidence base for emerging development plan policies in the LDF. Areas for new provision should be identified through the application of the local quantity and accessibility standards together.

Consultation

4.10. Consultation undertaken as part of the study highlighted the following key issues:

- the responses from the household questionnaire suggest people believe provision of parks and gardens is about right or more than enough (62.6%), however 33.3% believe there is nearly or not enough
- the highest level of satisfaction can be found in York South – where 67% of residents feel that the overall level of provision is about right. Rowntree Park is located in this area and hence this level of satisfaction is perhaps unsurprising. Consultations across the City indicated that Rowntree Park is the most highly regarded of all the parks in York.
- the level of dissatisfaction was highest in the Urban West – where 38.7% of residents feel that the level of provision is nearly enough or not enough. This correlates with the findings of the audit – as the West Urban area is the area exhibiting the lowest levels of provision
- 54% of respondents to the household survey think that the quality of parks and gardens in York is good, as opposed to only 8% who feel the quality is poor
- the levels of satisfaction are relatively consistent across all of the analysis areas, with only a 4% difference between the highest and lowest ratings
- the household survey reveals that 56% of people would ***expect*** to walk to parks and gardens in York, as opposed to 23% who would expect to drive and 10% who would expect to cycle. Of those users (who visit parks and gardens more often than any other typology in the study) 57% ***currently*** walk and 30% use cars
- other consultations indicated that parks and gardens are particularly highly valued, with residents and visitors to the City alike using them frequently. There was a particular emphasis on a desire for the provision of Local Parks and gardens. The IT young people survey revealed that parks and gardens are particularly valued by young people and children.

Setting provision standards – quantity

4.11. The recommended local quantity standard for parks and gardens has been summarised overleaf. Full justification for the local standard is provided within appendix E.

Quantity Standard (see Appendices F and I – standards and justification, worksheet and calculator)

Existing level of provision	Recommended standard – City and Local Parks
30.1 hectares, equivalent to 0.16 ha per 1000 population.	0.16 ha per 1000 population
Justification	
Parks are very important to residents in York, with a large number of respondents to the household survey using them more than once a month (City Parks 31%, Local Parks 37%). Whilst the consultation has split parks and gardens into two separate tiers, it is recommended that the Council adopt a quantity standard based on the overall level of provision. This will provide a greater degree of flexibility in terms of providing parks that are suitable for that locality rather than strict adherence to separate standards for City and Local Parks. The current level of provision of parks and gardens is equivalent to 0.16 ha per 1,000 population in York. The clear message from respondents to the household survey is that the level of provision is currently about right (60% for City Parks and 46% for Local Parks). This suggests that there are limited expectations in terms of further provision. As a consequence, it is recommended that the Council adopt a standard equivalent to the current level of provision in York. This will enable the Council to focus on improvements to the quality of parks and gardens but also address locational deficiencies in provision. The recommended standard (which should be viewed as a minimum level of provision across all areas) is lower than levels of provision in the City Centre and York South, but provides scope for new provision in other areas). This indicates that any new park provision should focus in the other areas of the City. The application of the quantity and accessibility standards should be undertaken alongside natural and semi natural provision and amenity green space (given their similar “informal open space function”). This will help with the prioritisation of quantitative increases. Qualitative improvements are particularly important given the limited prospect and opportunity to provide more parks within York. Moreover, given the population growth that will be experienced up to 2029, it is important for the local authority to seek to enhance accessibility to existing parks – for example by improving routes to them.	

Current quantity provision

4.12. The provision of parks and gardens in the City is summarised in Table 4.2 below:

Table 4.2 – Provision of Parks and Gardens in York

Analysis Areas	Current Population	Current Provision	Provision per 1000 population	Current Balance Against Local Standard (0.16 hectares per 1000 population)	LDF Population (2029)	Provision per 1000 population (2029)	Future Balanced Against Local Standard (0.16 hectares per 1000 population)
City Centre	5,604	5.01	0.89	4.09	6,785	0.74	3.89
Urban East	68,081	8.58	0.13	-2.62	82,426	0.10	-4.98
Urban West	50,079	4.46	0.09	-3.78	60,631	0.07	-5.51
York South	20,914	12.05	0.58	8.61	25,321	0.48	7.88
York North	38,269	0	0.00	-6.30	46,332	0.00	-7.62
Overall	182,947	30.10	0.16	0.00	221,495	0.14	-6.34

4.13. The key issues emerging from table 4.2 include:

- the local quantity standard has been set at the existing level of provision, meaning that when taking into account the amount of parks and gardens and the population, the level of provision is sufficient at the current time.
- the highest level of provision can be found in York South with 12.05 hectares equating to 8.61 hectares per 1000 population
- leading into 2029, as population figures rise, the overall position moves to a undersupply of -6.34 hectares, unless there is further provision made to meet to local standard of 0.16 hectares per 1000 population.

Setting provision standards – quality

4.14. The recommended local quality vision for parks and gardens has been summarised overleaf. Full justification for the local standard is provided within Appendix G.

4.15. Given the distinctly different nature of City Parks and Local Parks it is recommended that separate quality visions be supported as proposed above.

Quality Standard (see Appendix G)

Recommended standard – CITY PARKS
"A welcoming, clean and litter free site providing a one-stop community facility which is safe and accessible to all and has a range of facilities and other types of open space within it. City Parks should be attractive, well designed and maintained, providing well-kept grass, flowers and trees, adequate lighting and other appropriate safety features, as well as suitable ancillary accommodation (including seating, toilets, litter bins and play facilities). Sites should promote the conservation of wildlife and the built heritage and provide links to the surrounding green infrastructure"
A quality standard has been devised which reflects both aspirations and concerns expressed through local consultations (as demanded by PPG17) and also the Green Flag Award criteria (the national benchmark). The quality vision makes reference to other types of open space within it, recognising the multifunctionality of parks. In order to improve the quality of parks across the City it is important that the Council implement and strive to achieve a quality standard that will ensure consistency and high quality provision. Attractive, well-designed and well-maintained parks are key elements of good urban design and are fundamentally important in delivering places in which people want to live. The standard has been formulated to ensure that park provision is sustainable, balanced and ultimately achievable. The improvement of quality and accessibility to parks and the promotion of best practice sites such as Museum Gardens should increase local aspirations and encourage usage of parks. Many consultees highlighted the importance of good quality park provision in encouraging residents and visitors to use parks in the City. One of the most significant issues regarding the quality of City Parks appears to be the mis-use of sites, with 25% of respondents to the household survey stating it was a "significant problem". Therefore the achievement of the quality vision will be galvanised by the provision of bespoke sites for children and young people.

Recommended standard – LOCAL PARKS
"All Local Parks should be a facility serving the immediate needs of local people for active recreation. They should provide a welcoming, clean and litter free environment. Maintenance should focus on providing well-kept grass, flowers and trees and encourage wildlife to flourish with the use of varied vegetation through appropriate management. Community Leisure Officers should work with other organisations and the community to provide a hub of interest, activities and local events. Good quality and appropriate ancillary facilities (play areas, litter-bins, dog-bins and benches) should be provided to encourage greater use. "
A commonly expressed view of residents through the local consultation is that the quality of Local Parks across York is average (44%). A quality standard has been devised which reflects both concerns expressed through local consultations (as demanded by PPG17) and also the Green Flag Award criteria. Particularly important factors to arise from the local consultation that are included within the quality vision are well kept grass, clean and litter free, litter bins, flowers and trees and toilets. Explicit reference is not made to specific play opportunities to be included within the site (such as LEAPs, playing pitches and ball games area) as it is considered that the nature of provision is dependent on the size of the site and other facilities available in the area – therefore reference to active recreation is

intended to provide a greater degree of flexibility.

The importance of Local Parks is highlighted by the fact that they are one of the most frequently used typologies of open space. Therefore the achievement of a quality standard should be considered as one of the highest priorities for the Council. This focus on the achievement of the quality vision should be given more weight in light of the fact that it is widely felt (by 49%) that the level of provision of Local Park sites across York is about right / more than enough, suggesting that the emphasis should be on improving existing sites. Residents' perception of quality and quantity are interlinked with quality improvements often mitigating the need for new provision.

Quality Benchmarking

4.16. The calculation of the upper quartile quality score (84% on the site assessment for parks and gardens) provides an indication of the desired level of quality at each site and enables a comparison at sites across the City. It highlights sites that currently meet the visionary standard, and those sites falling below and consequently where improvement is required. A full list of site scores can be found in Appendix D.

Table 4.3 –Parks and gardens quality scores

Above upper quartile	85+	(90%) – Rowntree Park – York South – Site ID 80 (86%) – Glen Gardens – Urban East – Site ID 187
Median – Upper quartile	80%-84%	(84%) – Museum Gardens – City Centre – Site ID 282 (82%) – West Bank Park – City Centre - Site ID 277 (80%) – Heslington Hall – Urban East – Site ID 81
Lower quartile - median	70%-79%	(78%) – Grounds of "The Retreat" – Rural South – Site 835 (70%) - Clarence Gardens – Urban East – Site ID 216
Less than lower quartile	Below 70	(64%) – Hull Road Park – Urban East – Site ID 229 (62%) - St Georges Field – Urban East – Site ID 402

4.17. The key issues emerging from table 4.3 include:

- the average score of parks and gardens within York is 77%, showing that generally the quality of parks and gardens within the city is good. Rowntree Park and Glen Gardens achieved scores within the upper quartile or top 25th percentile. Both of these sites currently have Green Flag Awards
- with a score of 90%, Rowntree Park is considered to be a good/very good and should be used as an example of good practice
- high quality sites, especially sites achieving the upper quartile score of 86% should be protected, specifically if they have high/significant usage. The aspiration should be for all parks and gardens to fall within this category and achieve the quality vision
- sites scoring below the average of 77% should be prioritised for enhancement to help achieve the quality vision set for this type of open space

Setting provision standards – accessibility

4.18. The recommended local accessibility standard for parks and gardens has been summarised overleaf. Full justification for the local standard is provided within Appendix H.

Accessibility Standard

Recommended standard – CITY PARKS
20 MINUTE WALK TIME
Justification
Setting separate accessibility standards for City Parks and Local Parks is consistent with PPG17 which makes reference to hierarchies of provision. This is in recognition of the fact that large facilities tend to attract users from a wider area and have a higher local profile. Residents are less likely to travel the same distances to Local Parks. In terms of investigating the spatial distributions of unmet demand, the proposed City Park standard should not be considered in isolation but rather in the context of Local Parks. Those living within the Local Park distance threshold of a City Park will have no need of a Local Park as well. It will be important to provide an overall network of provision. The wide catchment of City Parks was further highlighted at drop-in sessions with many visitors to York having used these facilities. Linking in with the health agenda, it is important to consider sustainable methods of transport and encouraging walking and cycling to and within open spaces. There is a clear expectation from residents in the urban analysis areas that a walk time is required. A 20-minute walk time is recommended, as this is also consistent with the 75% threshold level as advocated in the PPG17 Companion Guide. Setting smaller accessibility catchments could provide unrealistic expectations in terms of delivering further provision in areas outside of the distance threshold – however given that 60% think that the current level of provision is about right it is unlikely that increased provision will be required. Emphasis should be on enhancing the quality of provision and using the opportunity to improve Local Parks into more formalised provision like City Parks. It is important to seek to enhance the accessibility of all existing City Parks – for example by promoting new entrance points or better routes to them and/or information and signage.

Recommended standard – LOCAL PARKS
15 MINUTE WALK TIME
Justification
There is a clear emphasis in favour of walking in terms of current travel patterns and expectations. 74% of respondents to the household survey would expect to walk to a local park, and 75% of regular users do walk. Moreover, given the more local nature of these facilities compared to the City Parks, it is considered appropriate to focus on access these sites on foot. This was further reflected in the IT for young people survey, where the location of facilities emerged as the key determinant of whether people use facilities. The standard has been set at a 15-minute walk time as this is the distance that 75% of respondents (across all analysis areas apart from the City Centre area) would be willing to walk up to. A lower accessibility standard could be justified on the basis of current users travel patterns – with most users travelling less than 10 minutes to access a Local Park. However, PPG17 states that lower thresholds are only needed where there is clear evidence that a significant proportion of local people do not use existing provision because they regard it as inaccessible. Given the findings of the local consultation (which highlight the high levels of use at Local Parks) this could not be substantiated. Therefore a 15-minute walk time is recommended – albeit alongside measures designed to improve accessibility, such as improved public transport or cycling routes. This will be particularly important if targets to increase participation in physical activity are realised. Local Parks will play a key role in ensuring all sectors of the community have access to parks.

Current provision - accessibility

4.19. Accessibility at each site was also assessed through a detailed site visit and the completion of a detailed pro forma. The assessment takes into account issues including whether the entrance to the site is easily accessible, the condition of roads, paths and cycleways, whether there is disabled access, how accessible is the site by public transport, bicycle or walking, and whether there are clear and appropriate signs to the site.

4.20. The accessibility of existing parks and gardens in the City is summarised in Table 4.4 overleaf. It is important to note that site assessments are conducted at a snapshot in time and may not always be reflective of the accessibility of the site throughout the year.

Table 4.4 –Parks and gardens accessibility scores

Above upper quartile	80+	(90%) – Rowntree Park – York South – Site ID 80 (80%) – Glen Gardens – Urban East – Site ID 187 (80%) – Museum Gardens – City Centre – Site ID 282
Median – Upper quartile	73.3%-79%	(76%) – Hull Road Park – Urban East – Site ID 229 (73.3%) – Heslington Hall – Urban East – Site ID 81 (73.3%) – West Bank Park – Urban West – Site ID 277
Lower quartile - median	70%-73.2%	(70%) – St Georges Field – City Centre – Site ID 402
Less than lower quartile	Below 70	(65%) – Clarence Gardens – Urban East – Site ID 216 (53%) – Grounds of the Retreat – York South – Site ID 835

4.21. The key issues emerging from table 4.4 include:

- the median score achieved was 73.3%. Those sites scoring below the median accessibility score should be prioritised for improvement in order to achieve the standards set by those within the upper quartile
- the upper quartile score was 80%. The aspiration should be for providers of parks and gardens to deliver sites that achieve the upper quartile accessibility benchmark.
- the lower quartile score was 70%.

Applying provision standards – identifying geographical areas

4.22. In order to identify geographical areas of importance and those areas with required local needs the quantitative provision of parks and gardens in York should be considered alongside the recommended local standard for accessibility. The quantity standards enable the identification of areas that do not meet the minimum provision standards, while the accessibility standards will help determine where those deficiencies are of high importance. Applying the standards together is a much more meaningful method of analysis than applying the standards separately and therefore helps with the prioritisation of sites. This will be discussed in greater detail in Section 12 'The Way Forward'.

Natural and Semi Natural Provision

Definition

5.1. This type of open space includes woodlands, urban forestry, scrubland, grasslands (eg downlands, commons, meadows), wetlands, nature reserves and wastelands with a primary purpose of wildlife conservation and biodiversity within the settlement boundaries. In some instances there may be some sites classified as amenity green space that also provide a natural and semi natural type of provision, thus highlighting the overlap between typologies.

5.2. Larger sites that sit outside of settlement boundaries have not been audited (for example Strensall Common) and considered within the quality of provision, however they are important sites and this has been recognised within the report, particularly sites that can alleviate natural and semi natural deficiencies.

5.3. Although natural and semi natural open space plays a key role in wildlife conservation and biodiversity the recreational opportunities provided by these spaces are also important. In this respect, natural and semi natural open spaces play a similar role and function to that of amenity green space and parks and gardens.

5.4. This section outlines the strategic context and key consultation findings relating to natural and semi natural open space and concludes with the development of local standards.

Figure 5.1 – Strensall Common

Table 5.1 – Regional and Local Strategic Context

Document Reviewed	Summary of key strategic drivers	Links to open space, sport and recreation study
Yorkshire and Humber Plan – Regional Spatial Strategy (Consultation Draft December 2005)	Policy ENV8 "Biodiversity" is particularly relevant to this study. It states that the region will safeguard and enhance the historic environment, and ensure that historical context informs future development and regeneration. All development strategies, plans, programmes and decisions in the Region will conserve distinctive elements of the historic environment and enhance local character and distinctiveness in line with heritage priority areas of regional, sub regional and local cultural and historical importance.	The application of the local standards for natural and semi natural provision contained within the study will ensure an appropriate balance between further provision and enhancement of existing provision.
City of York Development Control Local Plan	Policies NE1 to NE7 consider the protection and enhancement of biodiversity across the city and ensure that there is balanced consideration given to nature conservation against the need for development. The plan states that considerable weight will be given to the protection of designated sites. Policy NE2 prevents development where it is deemed that it would be harmful to river corridors or wetlands. Likewise, policy NE5a prevents development which be harmful to designated local nature reserves. Policy NE8 specifically protects green corridors from development	The Council's commitment to providing these types of spaces is evident through the policies contained within the Local Plan. Consideration should be given to utilising other spaces, such as parks to provide wildlife and natural areas. This will be considered within the individual typology sections for parks and amenity greenspaces.

Consultation

5.5. Consultation undertaken as part of the study highlighted the following key issues:

- natural and semi natural open space is very popular with residents of York with 54% of respondents stating that they visit this typology more than once a month
- based on the findings of the household survey, there is a split in opinion regarding the quantity of natural and semi natural provision in York. In total, 49.9% of the population stated that there is more than enough/about right amount of natural and semi natural areas within the City and 43.4% stated that there was nearly enough/not enough
- while many attendees at the workshops expressed opinions about the value of natural and semi natural sites, the underlying theme of these discussions related to a desire for increased emphasis on the quality and value of existing sites, rather than on the development of new facilities
- 43% of respondents to the household survey felt that the quality of sites was good, 44% indicated these open spaces were average and the remaining 12% felt that the quality of sites was poor
- Heslington Common was highlighted as a particularly high quality site with well-defined paths and appropriate maintenance for a natural site. Askham Bog was also perceived to be high quality and well valued by local residents. Hob Moor was also perceived to be well used, and contains good quality paths
- the household survey reveals that 62% of people would ***expect*** to walk to natural and semi natural areas in York, as opposed to only 20% who would expect to drive. Of those users (who visit natural and semi natural open spaces more often than any other typology in the study) 72% ***currently*** walk and only 20% use cars
- there was an ongoing concern that residents at workshops do not believe that enough is done to advertise the available opportunities – particularly in relation to biodiversity and play provision. Other views expressed include a lack of accessibility to river corridors, which are considered to be under used and under developed. Ensuring continued access to these sites was very important – even in situations where river development was permitted.

Setting provision standards – quantity

5.6. The recommended local quantity standard for natural and semi natural spaces has been summarised overleaf. Full justification for the local standard is provided within appendix F.

Quantity Standard (see appendices F and I – standards and justification, worksheet and calculator)

Existing level of provision	Recommended standard
1.58 hectares per 1000.	**1.59 hectares per 1000 population**
Justification	
Current provision across York is equivalent to 1.58 hectares per 1000 population. The spread of natural and semi natural provision about the City varies and it can be seen that provision is significantly higher in York South and North than the urban areas. Due to the size of Strensall Common and its subsequent tendency to skew figures, it has been removed from the calculation of the local standard. This ensures that the standard is reasonable. The overall split in opinion between provision being about right and insufficient is perhaps representative of the uneven distribution – which suggests a large contrast across York with some areas well served by natural and semi natural green spaces whilst in other areas there are likely to be locational deficiencies. The recommended standard takes into account the differences in the current level of provision between the analysis areas, and also the differences in expectations living in these areas. In light of the overriding levels of satisfaction with existing levels of provision, the standard has been set only marginally above current levels. The Council should continue to consider incorporating natural areas within other typologies as a key mechanism for achieving the local standard (where there is a localised surplus of that typology). This standard should be considered a minimum level of provision.	

Current quantity provision

5.7. The provision of natural and semi natural green space in the City is summarised in Table 5.2 overleaf. Strensall Common has been excluded from the quantity calculations as it covers substantial areas. As a consequence their inclusion would skew the findings and give a misleading picture as to the amount of amenity green space.

Table 5.2 – Provision of Natural and Semi Natural Open Space in York

Analysis Areas	Current Provision	Number of sites	Smallest site (Hectares)	Largest site (Hectares)	LDF Population (2029)	Provision per 1000 population (2029)	Future Balanced Against Local Standard (1.59 hectares per 1000 population)
City Centre	0.76	2	0.3	0.47	6,785	0.11	-10.03
Urban East	29.98	22	0.24	9.24	82,426	0.36	-101.08
Urban West	15.00	11	0.23	4.09	60,631	0.25	-81.40
York South	86.64	7	0.34	41.82	25,321	3.42	46.38
York North	156.57	21	0.07	47.36	46,332	3.38	82.90
Overall	288.95	63	0.07	47.36	221,495	1.30	-63.23

5.8. The key issues emerging from Table 5.2 include:

- there are currently 63 natural and semi natural open spaces in York. The overall level of provision equals 288.95 hectares, producing an average site of 4.58 hectares per open space. The size of sites ranges significantly – with some sites equivalent to 0.07 hectares whilst others are far larger pieces of land, up to 47.36 hectares. To a large extent this can be explained by the broad nature of this typology.
- whilst all analysis areas contain small natural and semi natural areas, the largest site across the City Centre analysis area is only 0.47 hectares. In contrast, York South and North both contain sites over 40 hectares.
- as shown in the table, there is a large variety in terms of both the number of sites and the level of provision per 1000 population. The largest number of sites is in Urban East (22), whilst the smallest number is in the City Centre (2)
- applying the standard up to 2029 reveals that the City Centre, Urban East and Urban West all show significant levels of deficiency per 1000 of the population. Therefore further provision will be required in order to meet the local standard in these localities.
- York South and York North both show significantly positive results when looking at the future balanced against the local standard of 1.58 hectares per 1000 population.

5.9. Table 5.3 overleaf lists those wards within the City that have a shortfall in natural and semi natural open space when assessed against the local quantity standard.

Table 5.3 – Provision of natural and semi natural open space by ward

Ward	Pop	Provision of natural and semi natural open space (hectares)	Local Standard (ha/1000)	Per 1000 population current	TOTAL Requirement	Surplus / Deficiency
Westfield Ward	13,690	1.84	1.59	0.13	21.77	-19.93
Haxby and Wigginton Ward	12,468	0.4	1.59	0.03	19.82	-19.42
Holgate Ward	11,564	0.83	1.59	0.07	18.39	-17.56
Micklegate Ward	10,994	0	1.59	0	17.48	-17.48
Clifton Ward	12,017	4.26	1.59	0.35	19.11	-14.85
Hull Road Ward	8,269	1.58	1.59	0.19	13.15	-11.57
Acomb Ward	7,729	2.65	1.59	0.34	12.29	-9.64
Dringhouses and Woodthorpe Ward	10,733	10.15	1.59	0.94	17.06	-6.92
Wheldrake Ward	3,899	0	1.59	0	6.20	-6.20
Bishopthorpe Ward	3,802	0	1.59	0	6.05	-6.05
Osbaldwick Ward	3,149	0	1.59	0	5.01	-5.01
Derwent Ward	3,540	1.28	1.59	0.36	5.63	-4.35
Guildhall Ward	6,676	9.17	1.59	1.37	10.62	-1.44
Heworth Ward	3,786	5.77	1.59	1.52	6.02	-0.25

5.10. The key issues emerging from Table 5.3 include:

- 6 wards have a shortfall of over 10 hectares for natural and semi natural open space
- 4 wards with a shortfall in provision currently have no natural and semi natural open space. This includes three smaller wards that have populations of less that 4000 residents.

Setting provision standards – quality

5.11. The recommended local quality vision for natural and semi natural open space has been summarised overleaf. Full justification for the local standard is provided within appendix G.

Quality Standard (see appendix G)

Recommended standard – NATURAL AND SEMI NATURAL OPEN SPACE
"A clean and litter free site with clear and obvious pathways that provide opportunities to link other open spaces together and where appropriate link to the outlying countryside. Sites should encourage wildlife conservation, biodiversity and environmental awareness and contain appropriate natural features. Litterbins, dog bins, benches and picnic areas should be provided where possible and there should be a clear focus on balancing recreational and wildlife needs, whilst ensuring public access. Community involvement through management, maintenance and promotion of these sites should be maximised. "
From consultation it is evident that the majority of users of natural areas value these sites for their recreational value, (for example, walking, as a picnic area etc) indicating that ancillary facilities will be an important quality feature of this type of open space. Clear footpaths and appropriate management of vegetation are specific issues to be addressed at these sites and this has been reflected in the quality vision. The main issues identified through local consultations centre around litter and dog fouling and this is reflected in the need for sites to be clean and litter free. Natural and semi natural green spaces are one of the more commonly used green space typologies of residents in York (as indicated in the household survey). As a consequence, the need to balance recreation and wildlife needs is reflected within the vision ensuring that quality is maintained while providing access. There is also a need to maintain and improve the biodiversity and wildlife value of all open space sites. This was a key finding of the workshops. The standard also incorporates the Council and public aspirations for safe, clean and functional natural open spaces that are well used and promoted for their conservation and educational benefits. To facilitate the management of sites the vision suggests the involvement of and consultation with the local community. The Green Flag Criteria represent a key national benchmark of quality for natural sites and the key elements of this standard are therefore also included within the proposed vision.

Current provision - quality

5.12. The quality of existing natural and semi natural open space in the City is summarised in Table 5.4. It is important to note that site assessments are conducted at a snap shot in time and may not always be reflective of the quality of the site.

5.13. The application of the 25th percentile standard (set at a score of 66% on the site assessment for natural and semi natural open space) provides an indication of the desired level of quality suggested at each site and enables a comparison at sites across the City. Those sites falling below are consequently where improvement is

required. The median score obtained was 60%, and the lower quartile was 54%. A full list of site scores can be found in the natural and semi natural section of Appendix D.

Table 5.4 – Selection of quality assessment results for natural and semi-natural provision

Above upper quartile	66+	(88%) – Natural area by River Foss – Urban East – Site ID 811 (80%) – Askham Bog Nature Reserve – York South – Site ID 124
Median – Upper quartile	60%-65%	(64%) - Land Off Beech Grove – Urban West – Site ID 267 (60%) - Burnholme Drive Natural area – Urban East – Site ID 184
Lower quartile - median	55%-59%	(56%) - Tang Hall Back – Urban East – Site ID 183 (56%) – Caroline Close Natural area – Urban West – Site ID 693
Less than lower quartile	Below 54	(50%) – Natural area to East of Strensall – York North – Site ID 903 (50%) – Natural area off Westfield Place – York South – Site ID 837

5.14. The key issues emerging from Table 5.4 and the site assessments include:

- a couple of sites scored extremely highly (including Askham Bog – Site ID 124) and can be considered to be excellent examples of good practice
- high quality sites, especially sites achieving scores within the upper quartile percentile should be protected, specifically if they have high/significant usage. The aspiration should be for all natural and semi natural areas to fall within this category and achieve the quality vision
- sites considered to be of high quality but with no or low/insignificant usage should be investigated further. Options include re-designation to other open space types to increase its value
- three sites scored below 50%. These sites should be prioritised for enhancement to help achieve the quality vision set for this type of open space.

Setting provision standards – accessibility

5.15. The recommended local accessibility standard for natural and semi natural open space has been summarised overleaf. Full justification for the local standard is provided within appendix H.

Accessibility Standard

Recommended standard
15 MINUTE WALK TIME
Justification
The local consultation serves to highlight the split in opinion regarding whether natural and semi natural sites should be access by walking or driving. (20% of respondents would travel by car, whilst 62% of people stated that they would travel by foot). To a certain extent, this will relate to the varying size and function of spaces within each locality. A drive time standard would produce a significantly larger distance threshold that a walk time standard. PPG17 states that higher thresholds may be appropriate if there is no realistic possibility of sufficient new provision to allow lower thresholds to be achievable, but can result in levels of provision that are too low and may not meet some local needs. In the context of the local consultation findings regarding the quantity of provision (28% think that there is not enough as opposed to only 6% who think there is more than enough) and given the importance of facilitating everyday contact with nature, a standard based on a walk time is recommended as this will help to deliver a greater number of localised natural and semi natural spaces. An assessment of the 75% threshold level citywide suggests that residents are willing to walk up to 15 minutes to a natural and semi natural open space. Given the high levels of agreement from respondents to the household survey regarding the appropriateness of a 15-minute walk time, it is recommended that the standard is set at this level.

Current provision - accessibility

5.16. Accessibility at each site was also assessed through a detailed site visit and the completion of a detailed pro forma. The assessment takes into account issues including whether the entrance to the site is easily accessible, the condition of roads, paths and cycleways, whether there is disabled access, how accessible is the site by public transport, bicycle or walking, and whether there are clear and appropriate signs to the site.

5.17. The accessibility of existing natural and semi natural open space in the city is summarised in Table 5.5 below. It is important to note that site assessments are conducted at a snapshot in time and may not always be reflective of the accessibility of the site throughout the year.

5.18. Based on the accessibility scores obtained, the upper quartile score was 60%. The mean was 53.3%, and the low quartile was 43.3%.

Table 5.5 – Selection of accessibility assessments results for natural and semi natural areas

Above upper quartile	60+	(70%) - Nether Poppleton Markfields – Rural North - Site ID 652 (63%) - Burnholme Drive NSN – Urban East – Site ID 184
Median – Upper quartile	53%-59%	(53%) – Walmgate Stray – York North – Site ID 552 (53%) – Lakeside Gardens NSN – York North – Site ID 806
Lower quartile - median	43%-52%	(50%) – Ash Walk NSN – York North – Site ID 744 (43%) - NSN to east of Strensall - York North – Site ID 903
Less than lower quartile	Below 43	(40%) - Land opposite the Tannery – York North – Site ID 144 (37%) - NSN by River Foss – Urban East – Site ID 811

5.19. The key issues emerging from Table 5.5 and the site assessments include:

- Bootham Stray obtained the highest accessibility score of all the sites assessed (80%), and can be considered to be excellent examples of good practice. Sites with high accessibility scores, especially sites achieving scores within the upper quartile percentile should be protected, specifically if they have high/significant usage.

- those sites scoring below the average accessibility score should be prioritised for improvement. Two of these sites scored below 40%. A space that is inaccessible is almost irrelevant to potential users and therefore may be of little value, irrespective of its quality. For example the natural and semi natural open space next to the River Foss achieved a quality score of 88% (the highest of all sites).

Applying provision standards – identifying geographical areas

5.20. In order to identify geographical areas of importance and those areas with required local needs the quantitative provision of natural and semi natural open spaces in York should be considered alongside the recommended local standard for accessibility. The quantity standards enable the identification of areas that do not meet the minimum provision standards, while the accessibility standards will help determine where those deficiencies are of high importance. Applying the standards together is a much more meaningful method of analysis than applying the standards separately and therefore helps with the prioritisation of sites. This will be discussed in greater detail in section 12 'The Way Forward'.

Amenity Green Space

Definition

6.1. Amenity Green Space is most commonly found in housing areas. It includes informal recreation spaces and green spaces in and around housing, with a primary purpose of providing opportunities for informal activities close to home or work, enhancing the appearance of residential or other areas. Amenity green space provides more of a visual amenity for older residents and a meeting place for young people.

6.2. There are a number of benefits in providing this type of open space including recreation value, a meeting place or / and focal point for communities. It is also important to recognise and take account of the secondary functions of amenity green space, in particular the visual benefits.

6.3. Amenity spaces can play an integral role in increasing participation in physical activity across the City, providing local opportunities to participate in activity and informal sport.

Figure 6.1 – Amenity Green Space in Clifton / Water End

Strategic context and consultation

6.4. There are a number of regional and local documents that refer to the importance of the provision of amenity green spaces within City of York. These key documents are set out in Table 6.1 overleaf:

Table 6.1 – Local Strategic Context – Amenity Green space

Document Reviewed	Summary	Links to open space, sport and recreation study
Yorkshire and Humber Plan – Regional Spatial Strategy (Consultation Draft December 2005)	Policy ENV10 states that development plans will maintain and enhance a range of landscapes and related assets of regional, sub-regional and local importance including historic landscapes, parks and gardens.	The audit undertaken as part of this study will provide a detailed understanding of existing provision. The subsequent analysis and application of local standards will guide the protection and enhancement of future open spaces.
City of York Development Control Local Plan	On a local level, the local plan further emphasises the importance of amenity green space in York, particularly in new developments. Policy L1c seeks to ensure that all new housing developments, and commercial proposals over 2500m^2 gross, contribute to the provision of amenity space to ensure that the needs of future occupiers are met. Commuted sums towards off site provision will be required in developments of less than 10 dwellings. For sites of 10 or more dwellings, an assessment of existing open space provision accessible to the proposed development site including its capacity to absorb additional usage will be undertaken. This is to ascertain the type of open space required and whether on-site or a commuted sum payment for off-site provision is more appropriate (this will include the cost of land purchase), based on individual site circumstances. The policy states that 0.9ha per 1000 population will be required. Policy 1d identifies a number of locations as potential areas for recreation opportunity and development of new amenity green space.	This open space study will provide a detailed understanding of the quality and quantity of existing provision. The study will also provide new local standards specific to the provision of amenity green space within the City of York. This should be used to guide the provision in new developments.

Consultation

6.5. Consultation undertaken as part of the study highlighted the following key issues:

- the findings of the household survey indicate that there is a split in opinion regarding the quantity of amenity green space in York. In total, 43.6% of the population stated that there is more than enough/about right amount of amenity green space areas while in contrast 43% indicated that there was insufficient

- consultation indicated that the quality of amenity areas is perceived to be average by 59% of household respondents. A higher percentage of people stated that they were good (26%) as opposed to poor (16%). Other consultations highlighted that safety concerns are a particular barrier to usage of amenity spaces

- the most common response was that the quality of amenity spaces was average in the household survey. Discussions at the workshops indicated that there remain concerns over the quality of sites, with some attendees highlighting that there remains significant potential for the enhancement of these sites

- the household survey reveals that 82% of people would ***expect*** to walk to amenity green spaces in York, with 72% of respondents stating a journey should take between 5-10 minutes – this highlights the expectation that these open spaces will be provided locally

- the IT young people survey illustrates the value of amenity green spaces, particularly to children under the age of 11, who use these spaces as an opportunity to meet with friends, particularly due to their locality to residential areas.

Setting provision standards – quantity

6.6. The recommended local quantity standard for amenity green space has been summarised overleaf. Full justification for the local standard is provided within appendix F.

Quantity Standard (see appendices F and I – standards and justification, worksheet and calculator)

Existing level of provision	Recommended standard
1.27ha per 1000 population	**1.29ha per 1000 population**
Justification	
The current level of provision is equivalent to 1.27 hectares per 1000 population. Consultation highlights the importance of these sites for recreational and landscape purposes in providing green space in what would otherwise be a built up area. Furthermore, of those residents who expressed an opinion (household survey) 29% think that the level of provision is insufficient, whilst only 39% think that the level of provision is about right. Therefore a standard slightly above the existing level of provision is recommended (the recommended standard should be viewed as a minimum standard). This will enable the Council to focus on improvements to the quality of sites to ensure that each area fulfils a role that is complementary to the surrounding green space network but also deliver new sites in areas of quantitative deficiency. This is particularly important in light of the emphasis on these spaces for landscape benefits as well as localised recreational resources. The application of the recommended local standard shows that the greatest requirement for amenity green space is within the Urban East area, where provision is significantly lower than other areas of the City. However, it is important to consider the provision of amenity green spaces alongside the provision of parks and gardens and provision for children as they have similar functions. Amenity green spaces are smaller facilities that tend to attract only local users. As highlighted in the consultations, amenity spaces are particularly important in the provision of local informal play opportunities for children and young people. Those residents living within close proximity to a park may have no need for local amenity green space as well although this type of open space will still be important in the context of visual amenity.	

6.7. Amenity green spaces provide an important urban function, visually breaking up the urban area and providing informal recreation opportunities. They also provide important recreational spaces within villages, perhaps as a village green or as part of a local recreation ground. This may be the only open space available within a village.

6.8. It is also important to recognise the secondary functions of amenity green space, specifically the visual benefits. Amenity green space sites may also provide a resource to meet deficiencies in other typologies e.g. play provision or outdoor sports facilities. This will be considered during the application of the local quality, quantity and accessibility standards.

6.9. The provision of amenity green space across City of York is set out in Table 6.2 overleaf.

Table 6.2 – Provision of Amenity Green space in York

Analysis Areas	Current Population	Current Provision	Provision per 1000 population	Current Balance Against Local Standard (1.29 hectares per 1000 population)	LDF Population (2029)	Provision per 1000 population (2029)	Future Balanced Against Local Standard (1.29 hectares per 1000 population)
City Centre	5,604	10.11	1.80	2.88	6,785	1.49	1.36
Urban East	68,081	38.13	0.56	-49.69	82,426	0.46	-68.20
Urban West	50,079	60.33	1.20	-4.27	60,631	0.99	-17.88
York South	20,914	27.91	1.33	0.93	25,321	1.10	-4.75
York North	38,269	96.07	2.51	46.70	46,332	2.07	36.30
Overall	182,947	232.55	1.27	-3.45	221,495	1.05	-53.18

6.10. The key issues emerging from Table 6.2 include:

- the overall level of provision in York equals 232.55 hectares, which equates to a deficiency of -3.45 against the local standard (1.29 hectares per 1000 population)
- while the City Centre, and the north and south areas have sufficient amenity spaces in quantitative terms to exceed the local standard, the urban areas in close proximity to the City Centre (Urban East (-49.69) and Urban West (-4.27) both display an undersupply of amenity green space per 1000 population
- the application of the local standard to the future population shows a significant increase in the level of undersupply across the City (-53.18 hectares against the local standard of 1.29 per 1000 population).

6.11. Given that there is an expectation that amenity green spaces will be provided locally, consideration has also been given to the application of the local standard on a ward-by-ward level. Although the quantity of amenity green space provision should be considered in the context of access to sites, analysis of the quantity of provision provides a useful indication regarding surpluses and deficiencies.

6.12. The distribution of amenity spaces on a ward-by-ward basis is set out in Table 6.3 overleaf. It can be seen that there are deficiencies in provision in 13 wards.

Table 6.3 – Provision of amenity green space by ward

Ward	Pop	Provision of outdoor sports facilities (hectares)	Local Standard (ha/1000)	Per 1000 population current	TOTAL Requirement	Surplus / Deficiency
Acomb Ward	7,729	1.44	1.29	0.19	9.97	-8.53
Bishopthorpe Ward	3,802	0.34	1.29	0.09	4.90	-4.56
Clifton Ward	12,017	12.48	1.29	1.04	15.50	-3.02
Derwent Ward	3,540	1.24	1.29	0.35	4.57	-3.33
Dringhouses and Woodthorpe Ward	10,733	43.81	1.29	4.08	13.85	29.96
Fishergate Ward	7,921	15.43	1.29	1.95	10.22	5.21
Fulford Ward	2,595	2.92	1.29	1.13	3.35	-0.43
Guildhall Ward	6,676	5.42	1.29	0.81	8.61	-3.19
Haxby and Wigginton Ward	12,468	6.62	1.29	0.53	16.08	-9.46
Heslington Ward	4,122	1.36	1.29	0.33	5.32	-3.96
Heworth Ward	3,786	20.74	1.29	5.48	4.88	15.86
Heworth without Ward	3,786	6.86	1.29	1.81	4.88	1.98
Holgate Ward	11,564	19.73	1.29	1.71	14.92	4.81
Hull Road Ward	8,269	1.71	1.29	0.21	10.67	-8.96
Huntington and New Earswick Ward	12,089	20.2	1.29	1.67	15.59	4.61
Micklegate Ward	10,994	15.02	1.29	1.37	14.18	0.84
Osbaldwick Ward	3,149	0.72	1.29	0.23	4.06	-3.34
Rural West York Ward	10,286	5.23	1.29	0.51	13.27	-8.04
Skelton, Rawcliffe and Clifton Without Ward	12,160	30.58	1.29	2.51	15.69	14.89
Strensall Ward	7,862	13.64	1.29	1.73	10.14	3.50
Westfield Ward	13,690	6.44	1.29	0.47	17.66	-11.22
Wheldrake Ward	3,899	0.61	1.29	0.16	5.03	-4.42

Setting provision standards – quality

6.13. The recommended local quality vision for amenity green space has been summarised overleaf. Full justification for the local standard is provided within appendix G.

Quality Standard (see appendix G)

Recommended standard – Amenity Green Space
"A clean and well-maintained green space site that is accessible to all. Sites should have appropriate ancillary facilities (dog and litter bins etc), pathways and landscaping in the right places providing a safe secure site with a spacious outlook that enhances the appearance of the local environment and provides a safe area for young people to meet. Larger sites should be suitable for informal play opportunities and should be enhanced to encourage the site to become a community focus, while smaller sites should at the least provide an important visual amenity function."
The local consultation reveals that amenity green spaces are one of the least used types of open spaces in the area, although they provide an important meeting place for children and young people. The importance of these sites as a visual amenity was reinforced across consultations, highlighting the need for high quality amenity space provision. Provision of amenity green space needs to be considered in the context of park provision, to ensure that they are complimentary to the wider green space network and increase their level of usage. For this reason, it is particularly important for larger sites to contain informal play opportunities and for smaller sites to provide an important visual amenity function and promote a sense of ownership. The recommended quality vision addresses some of the key concerns at existing open space sites cited by residents and also considers aspirations. While a desire for lighting was a key feature of local consultations, inclusion of this element may provide unrealistic expectations. Amenity green spaces can serve an important function in urban areas, breaking up the urban fabric. As a consequence, one of the important aspects in the vision is for a spacious outlook. This is also reflective of local consultation comments stating that sites are often confined to small cramped areas that aren't of sufficient size to enable informal play or more formalised play facilities. The standard incorporates both public and Council aspirations and has been designed to promote best practice encouraging informal play where sites are large enough - it is also designed to link in with the Green Flag criteria where appropriate. The vision also recognises the need for amenity spaces to contribute positively to the overall landscape and environment.

Current provision - quality

6.14. The calculation of the upper quartile quality score (74%) provides an indication of the desired level of quality at each site and enables a comparison at sites across the city. It highlights sites that currently meet the visionary standard, and those sites falling below and consequently where improvement is required.

6.15. The median score is 68% and the lower quartile score is 60%. A selection of assessment results have been included in the table below to illustrate the distribution of scores. A full list of site scores can be found in the amenity green space section of Appendix D.

Table 6.4 – Selection of scores for amenity green space

Above upper quartile	74+	(86%) - Hunters Way AGS – Urban West – Site ID 809 (86%) - Land along Hodgson Road – York North – Site ID 287
Median – Upper quartile	68%-73%	(70%) Mayfield Grove AGS – York South – Site ID 588 (70%) St Giles Way AGS – York South – Site ID 771
Lower quartile - median	60%-67%	(65%) Rosecroft Way AGS – York North – Site ID 637 (62%) Stratford Way AGS – Urban East – Site ID 674
Less than lower quartile	Below 60	(44%) - Lynwood Close AGS - York North – Site ID 742 (30%) - Land adjacent to Chapel Fields Road – Urban West – Site ID 274

6.16. The key issues emerging from Table 6.4 and the site assessments include:

- 29% of sites scored above the upper quartile standard of 74%. This therefore indicates that a large number of sites require improvements to meet the quality standard

- the average score of amenity green space sites is 67% although there is a significant range in the quality of provision across the area. This reinforces perceptions expressed in consultation that there is a significant variation in the quality of sites

- seven sites scored below 50%. These sites should be prioritised for enhancement to help achieve the quality vision set for this type of open space. Cleanliness and maintenance of amenity green spaces were perceived to be particularly important to residents

- high quality sites, especially sites achieving the upper quartile score of 74% should be protected, specifically if they have high/significant usage. The aspiration should be for all amenity green spaces to fall within this category and achieve the quality vision

- sites considered to be of high quality but with no or low/insignificant usage should be investigated further. Options for sites falling into this category include re-designation to other open space types to increase its value

Setting provision standards – accessibility

6.17. The recommended local accessibility standard for amenity green space has been summarised overleaf. Full justification for the local standard is provided within appendix H.

Accessibility Standard

Recommended standard
5 minute walktime (420m)
Justification
Given the large emphasis on walking rather than driving in terms of the expectations of respondents it is suggested that a walking standard is set. The expressed desire for local amenity space supports the perception that a standard based on travelling on foot is most appropriate. At a citywide level, the 75% threshold level (from the household survey) of a 10 minutes walk is higher than the modal response (5 minutes). Whilst setting a standard based on the 75% threshold level of a 10 minute walk time has been considered, this has to be rationalised against the local nature of amenity green spaces and the aspiration of residents for these open spaces. In the absence of other forms of open space, sport and recreation provision within close proximity of residents, the value of localised amenity green spaces is particularly important. Applying a shorter walk time will highlight real priority areas of deficiency. Furthermore, whilst having a smaller distance threshold will reveal a larger number of accessibility deficiencies, within these areas the provision of alternative forms of open space can often substitute the provision of informal amenity green spaces and new amenity green spaces may not also be a priority in these areas. A smaller accessibility catchment will ensure all residents have access to some type of local open space, facilitating delivery of increased participation in sport and physical activity. The importance of local provision to break up the urban landscape should also not be underestimated.

Applying provision standards – identifying geographical areas

6.18. In order to identify geographical areas of importance and those areas with required local needs the quantitative provision of amenity green space in York should be considered alongside the recommended local standard for accessibility. The quantity standards enable the identification of areas that do not meet the minimum provision standards, while the accessibility standards will help determine where those deficiencies are of high importance. Applying the standards together is a much more meaningful method of analysis than applying the standards separately and therefore helps with the prioritisation of sites. This will be discussed in greater detail in section 12 ‘The Way Forward’.

Provision for children

Definition

7.1. PPG17 defines provision for children and young people as one of its eight green space typologies. It states that the broad objective of provision for children and young people is to ensure that they have opportunities to interact with their peers and learn social and movement skills within their home environment. At the same time, they must not create nuisance for other residents or appear threatening to passers-by.

7.2. This typology encompasses a vast range of provision from small areas of green space with a single piece of equipment (similar to the typology of amenity green space) to a large multi purpose play areas. The National Playing Fields Association categorises play facilities into three distinct types of facility, specifically:

- Local Areas of Play (LAPs)
- Local Equipped Areas of Play (LEAPs)
- Neighbourhood Equipped Areas of Play (NEAPs).

7.3. PPG17 notes that using these sub-types of provision for children and young people often ignores the needs of older children such as teenagers. Each site and range of equipment has a different purpose and often serves a different age group and catchment. It is therefore important to divide the typology into two separate categories and analyse provision for children separately to provision for young people.

7.4. Provision for children is taken to include equipped children's play areas and adventure playgrounds.

7.5. This section of the report sets out the background, strategic context, consultation and current provision for children in York. Local standards have been derived from the local consultation undertaken as part of this study and are therefore directly representative of local needs.

Figure 7.1 Play area south of Dunnington.

7.6. The Big Lottery Fund (http://www.biglotteryfund.org.uk/index) has recently allocated £155 million of funding for provision of children's play facilities. The play initiative is based on the recommendations of the 2004 play review Getting Serious About Play, which defines children's play as "what children and young people do when they follow their own ideas, in their own way and for their own reasons."

7.7. The initiative aims (selected few) to:

- create, improve and develop children and young people's free local play spaces and opportunities throughout England, according to need
- ensure that local authorities work with other local stakeholders to develop children's play strategies and plans
- ensure that good, inclusive and accessible children's play services and facilities are provided locally.

7.8. Local authorities applying for funding are required to consult with relevant stakeholders including children and young people, provide a detailed play strategy and include a portfolio of proposed projects. Examples of individual projects that can form part of the portfolio include:

- adventure playgrounds, BMX and skateboard parks
- small public playgrounds and creating a play area
- informal sports facilities
- a mobile play team, play workers (either paid or volunteers) and holiday and after school play activities.

7.9. City of York Council, in conjunction with other partners have recently developed a play strategy, 'Taking Play Forward, A Strategy for York'. This is discussed further in Table 7.1 overleaf.

Table 7.1 – Regional and Local Strategic Context

City of York Development Control Local Plan	Local Plan policy L1C: Provision of New Open Space in Development. Developments for all housing sites or commercial proposals over 2,500m2 gross floor space will be required to make provision for the open space needs of future occupiers. The following provision of open space is required – 0.9 hectares per 1000 population of informal amenity space, 1.7 hectares per 1000 population of sports pitches, and 0.7 hectares per 1000 population for **children's equipped playspaces.**	The contributions required towards children's equipped playspaces in the Local Plan should be reviewed in light of the quantity, quality and accessibility standards contained within this report. Adopting these new standards in the Local Development Framework will help to ensure that new development plays its part in delivering an adequate level of open space, sport and recreation facilities for new communities.
Taking Play Forward – A Play Strategy for York	The Play Strategy targets the provision of sufficient appropriate play opportunities for both children and young people across all areas of the City. This relates to the provision of informal and formal opportunities for play and development, in addition to the provision of equipped play facilities Taking Play Forward, A Play Strategy for York aims to (amongst others): • raise the standards of play provision • encourage genuine communication and interactions between children and young people, individuals and services with interests in play • better manage play environments. The strategy ensures that provision meets the needs of children, meets necessary legislative requirements and involves users in decision-making and consultation. The strategy targets an increase in the proportion of play areas meeting NBPFA criteria from 36% to 42%. While no formal quality standards are set, ensuring good quality play opportunities is a key target of this play strategy. Equipped play provision is just one component of provision for play in York.	The recommendations and consultation within the Play Strategy should link directly with the recommendations and standards within this study. It is important that the open space study provides sufficient detailed analysis on consultation with children and analysis of need in order to implement objectives within the Play Strategy.

Consultation

7.10. Consultation specific to children and young people was undertaken using a variety of research techniques and findings have been used to inform the local standards, ensuring they are reflective of local needs. Key themes emerging from consultations include:

- responses from the household survey suggest that there is an overall dissatisfaction with the quantity of provision for children. 52.2% of the population believe that there is nearly enough/not enough, opposed to 32.8% who believe there is more than enough/about right
- many residents at drop in sessions reiterated the viewpoint that there is a lack of provision for children. This was perceived to be particularly apparent in the central areas, where there was a desire for more play facilities integrated within formal parks. Museum Gardens was highlighted as a particularly good opportunity.
- the two most commonly mentioned types of facilities that children responding to the IT Survey wanted near to their homes would be play areas with interesting play equipment and kickabout areas.
- consultation indicated that the quality of children's play areas is rated average by 46% of household respondents. A higher percentage of people stated that they were poor (30%) as opposed to being good (25%).
- many residents at drop in sessions expressed concerns that older children use facilities intended for younger children and cause damage and vandalism. It was felt that this may be a consequence of a lack of provision for teenagers. Rowntree Park play area and Clarence Gardens play area were perceived to be of good quality while in contrast, Westhorpe play area was perceived to be particularly poor, as was West Park play area (which is considered to be damp and dark). Sites located in larger parks were perceived to be of higher quality
- responses from the household survey regarding preferred methods of travel to this type of open space highlighted that 86% of residents expected to walk. Expectations in terms of travel time show a clearer pattern than for those of regular users, with 77% of people expecting the journey to take 5-10 minutes.
- the IT for young people survey highlighted the importance of providing local facilities, with many local children indicating that the key determinant of which facilities they used was the location. Distance from home was perceived to be a far greater barrier to usage than cost or poor quality facility provision.

Setting provision standards - quantity

7.11. The recommended local quantity standards for children's provision and young people's provision have been summarised overleaf. Full justifications for the local standards are provided within appendix F.

Quantity Standard (see appendices F and I – standards and justification, worksheet and calculator)

Existing level of provision	Recommended standard
0.05 ha per 1000 population	**0.07 hectares per 1000 population**
Justification	
The current level of provision is equivalent to 0.05 hectares per 1000 population. The extent to which locational deficiencies may exist within each analysis area will be dependent on the specific location of each facility (illustrated through the application of the relevant accessibility standard discussed in Appendix H). A key theme emerging from the consultation has been a shortage of provision for children (for example almost 48% of respondents to the household survey think that the level of provision is insufficient). This is supplemented by comments regarding the quality of existing sites. A standard has been recommended (derived from the local consultation) that seeks to encourage new provision in some areas, and quality improvements in other areas.	

Current quantity provision

7.12. The provision of facilities for children in the city of York is summarised in tables 7.2 and 7.3.

Table 7.2 – Provision for Children in York

Analysis Areas	Current Provision	Number of sites	Smallest site (Hectares)	Largest site (Hectares)	LDF Population (2029)	Provision per 1000 population (2029)	Future Balanced Against Local Standard (0.07 hectares per 1000 population)
City Centre	0.1	2	0.03	0.07	6,785	0.01	-0.37
Urban East	3.21	30	0.02	0.31	82,426	0.04	-2.56
Urban West	2.11	17	0.04	0.44	60,631	0.03	-2.13
York South	1.77	11	0.02	0.53	25,321	0.07	0.00
York North	2.47	19	0.01	0.72	46,332	0.05	-0.77
Overall	9.66	79	0.01	0.72	221,495	0.04	-5.84

7.13. The key issues emerging from Table 7.2 include:

- there are currently 79 children's play areas in York, with significant differences in the level of distribution across the analysis areas. The level of provision ranges from 0.01 hectares per 1000 population in the City Centre to 0.72 hectares per 1000 population in York North.
- given that there is a total of 79 sites covering an area of 9.66 hectares the average site size is 0.12 hectares. The smallest site can be found in York

North (0.01 hectares), however, York North also contains the largest site (0.72 hectares)

- based on the local standard of 0.07 hectares per 1000 population, all analysis areas with the exception of York South are predicted to have an undersupply by 2029. The most significant undersupply can be found in Urban East with –2.56 against the local standard

- it is important to note that whilst it appears that York South analysis area has sufficient provision, locational deficiencies could still exist and this should be explored through the application of the local accessibility standard.

Table 7.3 – Provision for Children and Teenagers by ward

Ward	Pop	Provision of children and teenagers (hectares)	Combined Local Standard (ha/1000)	Per 1000 population current	TOTAL Requirement	Surplus / Deficiency
Westfield Ward	13,690	0.5	0.11	0.04	1.51	-1.01
Haxby and Wigginton Ward	12,468	0.4	0.11	0.03	1.37	-0.97
Huntington and New Earswick Ward	12,089	0.42	0.11	0.03	1.33	-0.91
Acomb Ward	7,729	0.12	0.11	0.02	0.85	-0.73
Hull Road Ward	8,269	0.2	0.11	0.02	0.91	-0.71
Fishergate Ward	7,921	0.28	0.11	0.04	0.87	-0.59
Guildhall Ward	6,676	0.19	0.11	0.03	0.73	-0.54
Holgate Ward	11,564	0.84	0.11	0.07	1.27	-0.43
Bishopthorpe Ward	3,802	0	0.11	0	0.42	-0.42
Micklegate Ward	10,994	0.8	0.11	0.07	1.21	-0.41
Heworth without Ward	3,786	0.07	0.11	0.02	0.42	-0.35
Skelton, Rawcliffe and Clifton Without Ward	12,160	1.01	0.11	0.08	1.34	-0.33
Derwent Ward	3,540	0.08	0.11	0.02	0.39	-0.31
Heslington Ward	4,122	0.21	0.11	0.05	0.45	-0.24
Rural West York Ward	10,286	0.89	0.11	0.09	1.13	-0.24
Wheldrake Ward	3,899	0.21	0.11	0.05	0.43	-0.22
Dringhouses and Woodthorpe Ward	10,733	1.03	0.11	0.10	1.18	-0.15
Osbaldwick Ward	3,149	0.2	0.11	0.06	0.35	-0.15
Fulford Ward	2,595	0.17	0.11	0.07	0.29	-0.12
Clifton Ward	12,017	1.33	0.11	0.11	1.32	0.01
Strensall Ward	7,862	0.89	0.11	0.11	0.86	0.02
Heworth Ward	3,786	0.61	0.11	0.16	0.42	0.19

7.14. The key issues emerging from Table 7.3 include:

- given that the local quantity standard has been set at a level equivalent to a 40% increase on current provision, it is not unexpected to see that almost all wards require further provision in order to satisfy the combined local standards for provision for children and young people. The largest requirement can be found in Westfield ward – where there is a requirement for a further hectare of provision to meet the local standard.

- only three wards have sufficient quantity to satisfy the local standard at the current time – Clifton, Strensall and Heworth.

Setting provision standards – quality

7.15. The recommended local quality vision in terms of provision for children has been summarised overleaf. Full justification is provided in Appendix G.

Quality Standard

Recommended standards
"A well designed clean site of sufficient size to provide a mix of well-maintained and imaginative formal equipment and an enriched play environment in a safe and convenient location. Equipped play spaces should be fun and exciting and should have clear boundaries with dog free areas and include appropriate ancillary accommodation such as seating, litter bins and toilets in the locality of larger sites. Sites should also comply with appropriate national guidelines for design and safety and safeguard residential amenity of neighbouring land users. The site should also be accessible to all".
Justification
The need to address the mis-use of some sites is reflected within the standard in the need to design the site well, to locate it in a safe and secure location and to have clear boundaries. This can also refer to clear boundaries from facilities for young people to try and deter young people using younger children facilities. As such, the standard reflects the need for the good design and planning of play areas. Recognition of the need for places to go to meet friends is incorporated in the need for an enriched play environment rather than a focus only on formal equipment, following suggestions from children that some equipment can be boring. Consultation highlighted the importance of these sites being of sufficient size for children to enjoy, and this is mentioned in the quality vision. The standard aims to achieve a balance between locating play areas close to housing or footpaths as an additional level of security to be provided through natural policing e.g. overlooking houses where possible, but also ensuring that residential amenity and privacy is protected. The standard encompasses the need for play areas to be both sustainable in management terms but also promote a mix of facilities and provide an enriched play environment that is clean and safe to use. Wherever viable, the play equipment should be changed and developed over time (preferably in consultation with local children) to ensure that the facilities remain relevant to children and continue to be fit for purpose. The standard highlights the need for imaginative equipment, which emerged as a key issue throughout the consultation programme. The standard supports the principles of equipped play set out in the play strategy and encourages the design of interactive areas providing a range of play opportunities. It reflects the key principles outlined in the strategy, including the involvement of users and the desire for challenging, innovative and imaginative facilities. While this vision relates to equipped facilities only, these principles should be applied to all areas providing play opportunities for children.

Current provision – quality

7.16. The quality of existing provision for children in the City is summarised in Table 7.5. It is important to note that site assessments are conducted as a snapshot in time and may not always been reflective of the quality of the site throughout the year.

7.17. The calculation of the upper quartile quality score (72%) provides an indication of the desired level of quality at each site and enables a comparison at sites across the City. It highlights sites that currently meet the visionary standard, and those sites falling below and consequently where improvement is required.

7.18. The median score is 64.85% and the lower quartile score is 58%. A selection of assessment results have been included in the table below to illustrate the distribution of scores. A full list of site scores can be found in the provision for children section of Appendix D.

Table 7.4 – Selection of quality assessments results for children's play areas

Above upper quartile	72+	(84%) - Esk Drive Play Area – Urban West – Site ID 52 (80%) - CYP at Harewood Close/Kensington Road – Urban East – Site ID 817
Median – Upper quartile	64.85%-72%	(65.7%) – Hollis Crescent Play Area – York North – Site ID 748 (70%) Clarence Gardens Play Area – Urban East – Site ID 16
Lower quartile - median	58%-64.85%	(60%) Hull Road Park Play Area – City Centre – Site ID 17 (58%) Woodthorpe Rec Play Ground – Urban West – Site ID 34
Less than lower quartile	Below 58	(50%) – Gale Lane / Foxwood Lane Playground – Urban West – Site ID 35 (49%) - Ashton Avenue Playground – York South – Site ID 67

7.19. The key issues emerging from Table 7.5 and the site assessments include:

- 46% of respondents to the household survey felt that the quality of sites for children was average, and 30% think that the quality of provision is poor. This is reflected in the findings of the site assessments, with a median score of only 64.85%.

- despite this, 36% of sites scored over 70% or above, this suggests that a number of sites only require small improvements to achieve the quality vision. Furthermore, some play areas – such as the one located on land to the east of Common Road – scored very highly and could be thought of as examples of best practice.

- three sites scored very poorly (below 50%). Quality improvements at these sites should be considered a key priority for the Council.

Setting provision standards – accessibility

7.20. The recommended local accessibility standards for provision for children has been summarised below. Full justification for the local standard is provided within Appendix H

Accessibility Standard

Recommended standards
10 MINUTE WALK TIME
Justification
The majority of respondents to the household questionnaire indicate that they would expect to walk to a children's play facility. Furthermore, the distances that parents are willing to let their children travel unaccompanied from their homes to play facilities has reduced as concerns over safety have grown in recent years. However, PPG17 suggests that distance thresholds should be reflective of the maximum distance that typical users can reasonably be expected to travel. The 75% threshold level for children using the responses from the household survey was a 10-minute walk time across the City. This figure was consistent across all analysis areas, indicating an overall consensus of opinion. Furthermore the modal response was also a 10-minute walk time (consistent across all of the geographical areas). Setting the standard in accordance with the 75% threshold level is advocated in PPG17. Moreover, going for a larger accessibility catchment is recommended in terms of providing the Council with greater flexibility in terms of striking a balance between qualitative and quantitative improvements in provision. A 5-minute catchment would place a greater requirement on new provision, however local consultation revealed the importance of high quality sites and not just new facilities. The Council should continually seek to promote measures designed to improve accessibility, such as better public transport or cycling routes. A standard of 10 minutes walk time (480m) therefore meets user expectations and provides a realist target for implementation. Furthermore, this local standard encompasses all types of provision for children, including the larger, more strategic sites that people could be expected to travel further to visit. The provision of local facilities meets with the aspirations of children and young people and ensures that the use of these play facilities is maximized. It will be important to consider the provision of play facilities in the context of amenity open spaces, and other typologies providing more informal play opportunities for children. The standard of 10 minutes should also be considered in the context of other open space types, particularly amenity green space, which offer informal and unstructured opportunities for play.

Current provision – accessibility

7.21. Accessibility at each site was also assessed through a detailed site visit and the completion of a detailed pro forma. This takes into account issues including whether the entrance to the site is easily accessible, the condition of the roads, paths and cycleways, whether there is disabled access, how accessible is the site by public transport, bicycle or walking, and whether there are clear and appropriate signs to the site.

7.22. The accessibility of existing provision for children is summarised in Table 7.6 overleaf.

Table 7.5 - Accessibility of provision for children

Above upper quartile	70%+	(77%) - Play area off Burton Stone Lane – Urban East – Site ID 14 (77%) – Esk Drive Play Area – Urban West – Site ID 52
Median – Upper quartile	61%-70%	(70%) Howard Road Play Area – Urban East – Site ID 13 (70%) Cemetary Road Play Area – Urban East – Site ID 21
Lower quartile - median	53.5%-60%	(60%) – Rowntree Park Play Area – York South – Site ID 3 (60%) – West Bank Park (u11s Playground) – Urban West – Site ID 26)
Less than lower quartile	Below 53.5%	(50%) – Leeside Play Area – Urban West – Site ID 22 (43%) - Hollis Crescent Play Area – York North – Site ID 748

7.23. Key issues from the assessment of site specific accessibility in York include:

- the median score was 60%. The upper quartile score was 70%, and the lower quartile score was 53.5%.
- the play area off Burton Stone Lane obtained the highest accessibility score of all the sites assessed (77%), and can be considered to be an excellent example of an accessible play area. Sites with high accessibility scores, especially sites achieving scores within the upper quartile percentile, should be protected specifically if they have high/significant usage.
- those sites scoring below the average accessibility score should be prioritised for improvement. Four sites scored below 45%. These sites should be prioritised for enhancement. A space that is inaccessible is almost irrelevant to potential users and therefore may be of little value, irrespective of its quality.

Applying provision standards – identifying geographical areas

7.24. In order to identify geographical areas of importance and those areas with required local needs the quantitative provision for children in York should be considered alongside the recommended local standard for accessibility. The quantity standards enable the identification of areas that do not meet the minimum provision standards, while the accessibility standards will help determine where those deficiencies are of high importance. Applying the standards together is a much more meaningful method of analysis than applying the standards separately and therefore helps with the prioritisation of sites. This will be discussed in greater detail in section 12 'The Way Forward'.

Provision for Teenagers

Definition

8.1. This type of open space includes areas such as equipped play areas, ball courts, skateboard areas and teenage shelters with the primary purpose of providing opportunities for play and social interaction involving both children and young people.

8.2. It is important to re-iterate that play facilities designed for children have been assessed separately to those for young people (section 7). Throughout this section emphasis will be on young people but we will also consider both in conjunction with each other to look at the overall picture for provision.

8.3. Although this assessment of provision for young people considers only facilities specifically designed for the purpose of entertaining young people, it is recognised that other types of open space also fulfil this purpose. This will be considered as part of the application phase of the local standards.

Strategic context and consultation

Strategic context

8.4. The Big Lottery Fund (http://www.biglotteryfund.org.uk/index) has recently allocated £155 million of funding for provision of children's play facilities. The play initiative is based on the recommendations of the 2004 play review Getting Serious About Play, which defines children's play as "what children and young people do when they follow their own ideas, in their own way and for their own reasons."

8.5. The initiative aims (selected few) to:

- create, improve and develop children and young people's free local play spaces and opportunities throughout England, according to need
- ensure that local authorities work with other local stakeholders to develop children's play strategies and plans
- ensure that good, inclusive and accessible children's play services and facilities are provided locally.

8.6. Local authorities applying for funding are required to consult with relevant stakeholders including children and young people, provide a detailed play strategy and include a portfolio of proposed projects. Examples of individual projects that can form part of the portfolio include:

- adventure playgrounds, BMX and skateboard parks
- small public playgrounds and creating a play area
- informal sports facilities
- a mobile play team, play workers (either paid or volunteers) and holiday and after school play activities.

Table 8.1 overleaf sets out the strategic context for the provision of facilities for young people within the City of York. Provision for children and young people is of

particular importance within York. This is reinforced within the Local Area Agreement, which prioritises children and young people as one as the four building blocks. Key priorities for children and young people include:

- being healthy
- staying safe
- enjoying and achieving
- making a positive contribution
- achieving economic wellbeing.

Table 8.1 – Provision for Young People Local Strategic Context

Document Reviewed	Summary	Relevance to this open space, sport and recreation study
City of York Development Control Local Plan	Local Plan policy L1C considers the provision of new open space (including provision for children and young people), stating specifically that: "developments for all housing sites or commercial proposals over 2,500m2 gross floor space will be required to make provision for the open space needs of future occupiers. The following provision of open space is required – 0.9 hectares per 1000 population of informal amenity space, 1.7 hectares per 1000 population of sports pitches, and 0.7 hectares per 1000 population for **children's equipped playspaces."**	The contributions required towards provision for young people should be reviewed and specified in light of the quantity, quality and accessibility standards contained within this report. Adopting these new standards in the Local Development Framework will help to ensure that new development plays its part in delivering an adequate level of open space, sport and recreation facilities for new communities.
Taking Play Forward – A Play Strategy for York	The Play Strategy targets the provision of sufficient appropriate play opportunities for both children and young people across all areas of the city. This relates to the provision of informal and formal opportunities for play and development, in addition to the provision of equipped play facilities Taking Play Forward, A Play Strategy for York aims to (amongst others): • raise the standards of play provision • encourage genuine communication and interactions between children and young people, individuals and services with interests in play • increase participation in play between children and young people • better manage play environments. The strategy ensures that provision meets the needs of children, meets necessary legislative requirements and involves users in decision-making and consultation. Equipped play provision is just one component of provision for play in York.	The recommendations and consultation within the Play Strategy should link directly with the recommendations and standards within this study. It is important that the open space study provides sufficient detailed analysis on consultation with young people and analysis of need in order to implement objectives within the Play Strategy.

Consultation

8.7. Consultation specific to young people was undertaken using a variety of research techniques and findings have been used to inform the local standards, ensuring they are reflective of local needs. Key themes emerging from consultations include:

- across York, the majority of residents (58.9%) stated that the level of provision for young people is insufficient. In contrast, only 1.9% think that there is more than enough provision. Provision for teenagers and young people was a key theme throughout all consultations, with the majority of comments focusing on a lack of activities for young people across the City
- this perception was reflected in all geographical areas of the City. Over 50% of residents in all areas indicated that provision was insufficient in quantitative terms to meet local needs
- when considering also those residents who felt there to be nearly enough facilities for teenagers (8%), this position is further strengthened. The perception of a lack of provision for teenagers is the most conclusive of all open space typologies. Other consultations highlighted the negative impact that a lack of provision for young people was perceived to have on the quality of other types of open space across the City
- consultation indicated that the quality of teenage facilities is rated as poor by 64% of household survey respondents. This is significantly higher than for any of the other typologies.
- the high level of dissatisfaction with the quality of facilities is consistent across all geographical areas of the City. These issues surrounding the quality of existing provision are compounded by the dissatisfaction with the quantity of provision.
- 68% of respondents stated that walking would be the preferred option when travelling to this type of open space. Of those respondents who would expect to walk to teenager facilities – the most commonly held expectation is that this journey should take 5-10 minutes (66%).
- the provision of local facilities was highlighted as particularly important. Many young people indicated that they most frequently visit parks and amenity spaces, as a result of the close proximity of these facilities to their homes. This reinforces the importance of providing facilities local to young people in order to ensure that they have sufficient opportunities for play and active recreation.

Setting provision standards - quantity

8.8. The recommended local quantity standards for teenagers provision has been summarised below. Full justifications for the local standards are provided within Appendix F.

Quantity Standard (see appendices F and I – standards and justification, worksheet and calculator)

Existing level of provision	Recommended standard
0.0043ha per 1000 population	**0.04ha per 1000 population**
Justification	
The current level of provision is equivalent to 0.0043 hectares per 1000 population, which is lower than the level of provision for children and reflects the lack of provision that was a key theme across consultations. Across the analysis areas, the greatest requirement for further provision will be in the two urban analysis areas. The extent to which locational deficiencies may exist within each analysis area will be dependent on the specific location of each site (illustrated through the application of the relevant accessibility standard – see Appendix H). In light of the low number of dedicated facilities for young people, it is likely that large areas of deficiency will be identified. Provision for young people should also be considered in the context of the provision of parks and amenity space, which provide informal opportunities for young people. A similar proportion of respondents to the IT Young Peoples Survey think that the level of provision is inadequate as was the case for children's provision. Both adults and young people made similar comments at drop in sessions around the City and the lack of provision for young people was a key issue across all consultations. Furthermore, the lack of provision for young people was perceived to have a negative impact on the quality of other open spaces across the City boundaries. A standard has therefore been recommended that is above the existing level of provision.	

Current quantity provision

8.9. The provision of facilities for teenagers across York is summarised below in Table 8.2

Table 8.2 – Provision for Teenagers in York

Analysis Areas	Current Population	Current Provision	Provision per 1000 population	Current Balance Against Local Standard (0.04 hectares per 1000 population)	LDF Population (2029)	Provision per 1000 population (2029)	Future Balanced Against Local Standard (0.04 hectares per 1000 population)
City Centre	5,604	0	0.0000	-0.22	6,785	0.0000	-0.27
Urban East	68,081	0.15	0.0022	-2.57	82,426	0.0018	-3.15
Urban West	50,079	0.57	0.0114	-1.43	60,631	0.0094	-1.86
York South	20,914	0.06	0.0029	-0.78	25,321	0.0024	-0.95
York North	38,269	0	0.0000	-1.53	46,332	0.0000	-1.85
Overall	182,947	0.78	0.0043	-6.54	221,495	0.0035	-8.08

8.10. The key issues emerging from Table 8.2 include:

- the information displayed in the table reinforces the findings from the household survey, indicating that there is a lack of provision across the City when measured against the local standards of 0.04 hectares per 1000 population
- the overall undersupply is equivalent to 6.54 hectares. The Urban East area has particularly high levels of under provision, equivalent to –2.57 hectares against the local standard
- when projecting the likely adequacy of provision in light of population growth, there is an increase in overall deficiency, further justifying the need to improve the level of provision for teenagers.

Setting provision standards – quality

8.11. The recommended local quality visions for teenagers provision has been summarised below. Full justification is provided in Appendix G.

Quality Standard

Recommended standards
"A well designed high quality site that provides a meeting place for young people, encompassing the needs of all users with varied formal and informal equipment/space. The site should be located in a safe environment that is accessible to all, without compromising neighbouring land users. The focus should be on providing a well-maintained, clean and litter free area with appropriate lighting and shelter, promoting a sense of community ownership. Facilities should be developed through extensive consultation with the local community at all stages of the process"
Justification
Consultation with young people reinforced the findings in similar studies that highlight the importance to regular users of such spaces to 'meet friends', as somewhere to go and not specifically to use the equipment. Promoting a sense of ownership with the sites may also help to reduce the level of vandalism as may the provision of more innovative and imaginative solutions. It is important that these sites are clean, safe and secure. This was a key element emerging from local consultation and is therefore reflected within this standard. A recent CABE Space study shows that well designed, well maintained public spaces can contribute to reducing the incidence of vandalism and anti-social behaviour, and result in long term cost savings and this is reflected in the quality vision. Consideration should also be given to the achievement of the Green Flag criteria inherent within this vision. It is important that facilities for teenagers meet the needs of users and teenagers should be involved throughout the consultation and development phase of the site in order to promote community involvement and respect. This is in line with priorities identified in the City of York Council Play Strategy.

Current provision – quality

8.12. The quality of existing provision for teenagers in the City is summarised in Table 8.3. It is important to note that site assessments are conducted as a snapshot in time and may not always been reflective of the quality of the site throughout the year.

8.13. The application of the 75th percentile score (calculated at 69.95% on the site assessment for teenagers) provides an indication of the desired level of quality at each site and enables a comparison at sites across the city. It highlights sites that currently meet the visionary standard, and those sites falling below and consequently where improvement is required.

8.14. The quality scores achieved by sites designed to meet the needs of young people are set out below in Table 8.3

Table 8.3 –Provision for teenagers quality scores

Above upper quartile	69%+	(74%) - West Bank Park (Over 11s playground) – Urban West – Site ID 25
Median – Upper quartile	67%-69%	(69%) - Skatepark in Rowntree Park – York South – Site ID 827
Lower quartile - median	66%-67%	(66%) - Vesper Walk – Urban East – Site ID 66 (66%) - Acomb Moor by Ashmeade Close – Urban West – Site ID 313
Less than lower quartile	Below 66%	

8.15. It can be seen that overall, the quality of provision for young people is relatively consistent across the City, with the quality scores achieved ranging from 66% to 74%. Rowntree Park skate park was perceived to be an example of good practice throughout consultations.

Setting provision standards – accessibility

8.16. The recommended local accessibility standard for provision for young people has been summarised overleaf. Full justification for the local standard is provided within Appendix H

Accessibility Standard

Recommended standard
15 minutes walk (720m)
Justification
The majority of people stated that walking is the most preferred method of travel to a young person's facility; therefore it is recommended that a walk time standard be adopted. A walk time is considered most appropriate as these facilities are for young people who do not always have access to a motorised vehicle and consequently a walk time enables access for all ages and users. Provision of localised facilities meets the needs of young people as identified within the IT young people survey. The recommended standard of 15 minutes walk time is in line with the 75% threshold level, however, it is important to note the implications in terms quantitative improvements. Setting a higher travel time threshold provides opportunities to invest in existing facilities and highlights areas in most need (priority for new provision). The standard also sits in line with the recommended accessibility standard for local parks, providing an opportunity to deliver facilities for young people in these parks. This will be explored further through the application of the local standards (once approved). While the 75% threshold was marginally lower in the rural area, indicating that residents in this area expect more local facilities – the delivery of facilities for teenagers in each of the rural villages would be unduly onerous and inappropriate.

Current provision – accessibility

8.17. Accessibility at each site was also assessed through a detailed site visit and the completion of a detailed pro forma. This takes into account issues including whether the entrance to the site is easily accessible, the condition of the roads, paths and cycleways, whether there is disabled access, how accessible is the site by public transport, bicycle or walking, and whether there are clear and appropriate signs to the site.

8.18. The accessibility of existing provision for teenagers is summarised in Table 8.4 overleaf:

Table 8.4 - Accessibility of provision for teenagers

Above upper quartile	61%+	(63%) - Skatepark in Rowntree Park – York South – Site ID 827
Median – Upper quartile	60%-61%	(60%) - Vesper Walk – Urban East – Site ID 66 (60%) - West Bank Park (Over 11s playground) – Urban West – Site ID 25
Lower quartile - median	56%-60%	
Less than lower quartile	Below 56%	(43%) - Acomb Moor by Ashmeade Close – Urban West – Site ID 313

8.19. Like the quality of provision for young people, the accessibility to sites for young people is relatively consistent across the City. The exception to this is the kickabout site at Acomb Moor which achieves an accessibility score of only 43%.

Applying provision standards – identifying geographical areas

8.20. In order to identify geographical areas of importance and those areas with required local needs the quantitative provision of young people in York should be considered alongside the recommended local standard for accessibility. The quantity standards enable the identification of areas that do not meet the minimum provision standards, while the accessibility standards will help determine where those deficiencies are of high importance. Applying the standards together is a much more meaningful method of analysis than applying the standards separately and therefore helps with the prioritisation of sites. This will be discussed in greater detail in Section 12 'The Way Forward' and will be encompassed within the next stage of work.

Outdoor Sports Facilities

Definition

9.1 PPG17 guidance considers the provision of both indoor and outdoor sports facilities. This study includes only outdoor sports facilities. Indoor facilities have been considered separately as part of the Councils' Sport and Recreation Strategy.

9.2 Outdoor sports facilities is a wide-ranging category of open space, which includes both natural and artificial surfaces for sport and recreation that are either publicly or privately owned. Examples include playing pitches, athletics tracks, bowling greens and golf courses with the primary purpose of participation in outdoor sports.

9.3 Outdoor sports facilities are often a focal point of a local community, functioning as a recreational and amenity resource in addition to a formal sports facility. This is particularly true of pitches, which often have a secondary function of a local dog walking and kickabout area. Likewise, amenity green space sites often provide informal sporting opportunities.

Figure 9.1 – Shipton Road Rugby and Cricket Club

9.4 Table 9.1 overleaf considers the strategic context for outdoor sports facilities across the City of York.

Table 9.1 - Strategic Context – Outdoor Sports Facilities

Document Reviewed	Summary	Links to open space, sport and recreation study
Yorkshire and Humber Plan – Regional Spatial Strategy (Consultation Draft December 2005)	Policy ENV10 states that development plans will maintain and enhance a range of landscapes and related assets of regional, sub-regional and local importance including historic landscapes, parks and gardens.	The audit undertaken as part of this study will provide a detailed understanding of existing provision. The subsequent analysis and application of local standards will guide the protection and enhancement of future open spaces.
City of York Development Control Local Plan	On a local level, the Local Plan further emphasises the importance of amenity green space in York, particularly in new developments. Policy L1c seeks to ensure that all new housing developments and commercial proposals over 2500m^2 gross, contribute to the provision of amenity space to ensure that the needs of future occupiers are met. Commuted sums towards off site provision will be required in developments of less than 10 dwellings. For sites of 10 or more dwellings, an assessment of existing open space provision accessible to the proposed development site including its capacity to absorb additional usage will be undertaken. This is to ascertain the type of open space required and whether on-site or a commuted sum payment for off-site provision is more appropriate (this will include the cost of land purchase), based on individual site circumstances. The policy states that 1.7ha per 1000 population outdoor sports facilities will be required. Policy 1d identifies a number of locations as potential areas for recreation opportunity and development of new amenity green space.	This open space study will provide a detailed understanding of the quality and quantity of existing provision. The study will also provide new local standards specific to the provision of outdoor sports facilities within the City of York. This standard will complement the work undertaken as part of the playing pitch strategy and should be used to guide the provision of outdoor sports facilities in new development as well as inform the provision of new or improved sport and recreation facilities across the City of York.

	Policy L1b protects against the loss of leisure facilities, stating that development leading to the loss of leisure facilities will only be permitted if it can be demonstrated that: a) a need for the leisure facility no longer exists; or b) appropriate alternative facilities exist within the catchment area. Policy 1e encourages proposals for the development of golf courses, and / or driving ranges on the assumption that the proposal would not have an adverse effect on the landscape, the dominant features of which should be retained; and a) new buildings are kept to the minimum in line with the operational requirements of the activity; and b) proposals would not lead to the loss of existing public rights of way and would exploit the opportunity to provide new public access to the countryside; and c) the proposal does not involve development on the best and most versatile agricultural land (defined as grades 1, 2, or 3a); and d) the proposal would not be visually intrusive due to the use of floodlighting or extensive fencing.	
City of York Council Playing Pitch Strategy	The Playing Pitch Strategy considers the provision of pitches for football, cricket, rugby and hockey both on a local authority wide level and also within each of the four action zones. The study concluded that the City currently has a shortage of mini and junior soccer pitches (31 and 9 respectively) and junior rugby league pitches (16). In light of population growth, these deficiencies are expected to increase. The study also identified a number of other pitches in the city which are not currently available for community use, many of which are located on school sites. Statistical analysis indicates that the City has a surplus of cricket pitches and the bulk of these are at community accessible school sites. In addition to quantitative shortfalls, issues regarding the quality of both pitches and ancillary accommodation were also identified. The Playing Pitch Strategy also identifies a series of key actions within each of the four areas of the city.	This study will complement the Playing Pitch Strategy and provide a wider evidence base regarding other outdoor sports facilities.

Consultation

9.5 Consultation undertaken as part of the study highlighted the following key issues:

- of the five facility types surveyed, residents were dissatisfied with two (synthetic turf pitches 28.1% and tennis courts 28.1%), stating there was not enough provision. The remaining three areas; grass pitches 51.5%, bowling greens 47.1% and golf courses 36.7% indicated that the levels of provision were about right. This contrasts with the findings of the Playing Pitch Strategy, which suggest that there are insufficient pitches. This reflects the demand led nature of outdoor sports provision

- the view that there are shortfalls of pitches was also reflected in workshops and drop in sessions, where it was suggested that there are particular shortfalls in provision for junior teams and of training facilities. It was also felt that community use of school sites would significantly advance the level and quality of provision across the City

- the urban areas surrounding the City Centre have the lowest levels of provision per 1000 population

- consultation indicated that the quality of outdoor sports facilities in York is considered to be average by 50% of household survey respondents. A higher percentage of people stated that they were poor (28%) as opposed to being good (23%)

- the modal response across all geographical areas of the City analysis areas the modal response was average. It was perceived that facilities were of higher quality outside of the urban areas

- when asked what prevented respondents from using outdoor sports facilities, many residents commented on the poor quality of the facilities and also the limited size of the specific sites, both of which have contributed to poor quality ratings

- the household survey reveals that York residents would expect to walk to grass pitches (66%), tennis courts (52%) and bowling greens (55%), whereas the majority of respondents would expect to drive to golf courses (69%). Synthetic turf pitches shows a fairly even distribution of results between walking (32%), driving (38%) and cycling (23%).

Setting provision standards – quantity

9.6 The recommended local quantity standard for outdoor sports facilities has been summarised overleaf. Full justifications are provided within Appendix F.

Quantity Standard (see appendices F and I – standards and justification, worksheet and calculator)

Existing level of provision	Recommended standard
1.94ha per 1000 population	1.95ha per 1000 population
Justification	
Golf courses have been removed from all figures due to their size and subsequent tendency to skew figures. Although many school sports sites are not accessible at the current time, they are identified as important resources throughout the consultations. School facilities have been included within the calculation, to ensure that they are protected. The Building Schools for the Future and extended schools programmes may offer opportunities to address future shortfalls of provision and ensure additional facilities are available for community use. This may be critical if participation targets are achieved, particularly in terms of providing facilities for peak day activity. In reflecting the demands placed on outdoor sports, and the nature of this standard, it has been recommended that it is set marginally above the current level of provision (1.94ha) at 1.96 ha per 1,000 population. Additional consultation should inform where this demand is needed most, however results from the local consultation suggest there are demands being placed on STPs, tennis courts and bowling green. Based on the findings of the audit, the greatest requirement for facilities will be within the urban analysis areas.	

Current quantity position

9.7 The provision of outdoor sports facilities across the City is summarised in Table 9.2 below.

Table 9.2 – Provision of Outdoor Sports Facilities in York (excluding golf courses)

Analysis Areas	Current Provision	Number of sites	Smallest site (Hectares)	Largest site (Hectares)	LDF Population (2029)	Provision per 1000 population (2029)	Future Balanced Against Local Standard (1.95 hectares per 1000 population)
City Centre	0.16	1	0.16	0.16	6,785	0.02	-13.07
Urban East	90.7	59	0.06	7.04	82,426	1.10	-70.03
Urban West	58.6	30	0.05	6.68	60,631	0.97	-59.63
York South	115.72	30	0.07	50.32	25,321	4.57	66.34
York North	90.29	34	0.1	11.47	46,332	1.95	-0.06
Overall	355.47	154	0.05	50.32	221,495	1.60	-76.45

9.8 The key issues emerging from Table 9.2 above include:

- the current overall level of provision is equivalent to 355.47 hectares spread across 154 sites across the City, which equate to an average site size of 2.3 hectares

- there is limited provision for sports within the City Centre area (1 site) although the Urban East area contains the highest number of sites

- in light of the population growth, by 2029 it is likely that there will be deficiencies in most areas of the City. This will be particularly apparent to the east of the City Centre area (-70.03 against the local standard of 1.95 hectares per 1000 population).

Setting provision standards – quality

9.9 The recommended local quality vision for outdoor sport facilities has been summarised below. Full justification is provided in Appendix G.

Quality Standard

Recommended standard
"A well-planned, clean and litter free sports facility that sits in harmony with its surroundings. The site should be well maintained to an appropriate match play standard, with good grass coverage and well-drained quality surfaces. Appropriate ancillary facilities should be provided at sites with consideration given to providing toilets, changing rooms, car parking, and meeting places. The site should be managed appropriately ensuring community safety and provide a local amenity that is close to people's homes, encouraging residents to participate in physical activity"
Justification
The key issues identified with existing sites specifically vandalism and graffiti; poor maintenance (drainage) and poor quality changing facilities are reflected within the vision. Cleanliness and maintenance of facilities was perceived to be particularly important throughout consultations. The standard incorporates "appropriate management" to ensure that where appropriate, management issues are addressed. Community safety is also incorporated to reflect NPFA design guidelines. It is also important that outdoor sport facilities are well drained, and are fit for purpose. Given that general satisfaction regarding outdoor sports facilities is fairly low, it is important that careful consideration is giving to delivering aspirations for outdoor sports facilities. Some quantitative issues can also be addressed through improved quality of pitches (and subsequently increases the capacity of pitches for the match play). This increases the importance of meeting this quality vision. Given that the majority of sites will be of substantial size, it is important that sites are designed with careful consideration to their context – this is reflected in the quality vision. The importance of ensuring that sports facilities are accessible to all was also highlighted as a key issue, with many young people enjoying informal use of outdoor sports facilities.

Current provision – quality

9.10 The quality of existing provision for outdoor sports facilities in the City is summarised in table 9.3 below. It is important to note that site assessments are conducted as snapshot in time and may not always been reflective of the quality of the site.

Quality Benchmarking

9.11 The application of the upper percentile score (70% on the site assessment for outdoor sports facilities) provides an indication of the desired level of quality at each site and enables a comparison of sites across the City. It highlights sites, which currently meet the visionary standard, and those sites falling below and consequently where improvement is required. A full list of site scores can be found in the outdoor sports facilities section of Appendix D.

9.12 The median score is 65.7% and the lower quartile score is 58%. A selection of assessment results have been included in the table below to illustrate the distribution of scores. A full list of site scores can be found in the outdoor sport facilities section of Appendix D.

Table 9.3 – Selection of quality assessments results for outdoor sports facilities

Above upper quartile	70%+	(80%) - Upper Poppleton Sports Ground – York North – Site ID 651 (78%) – Heslington Sportsfield – York South – Site ID 555
Median – Upper quartile	65.7%-69%	(66%) – Huntingdon Sports Club – Urban East – Site ID 171 (66%) – Glen Gardens Bowling Green – Urban East – Site ID 89
Lower quartile - median	58%-65.7%	(60%) – Askham Lane Cricket Ground – Urban West – Site ID 84 (64%) – Hopgrove Playing Fields – York North – Site ID 87
Less than lower quartile	Below 58	(56%) – Howard Road Playing Field – York North – Site ID 745 (54%) – Glen Gardens Tennis Courts – Urban East – Site ID 91

9.13 The key issues emerging from Table 9.3 include:

- the range of quality of outdoor sports facilities is wide, with sites achieving contrasting high and low scores – this indicates that some residents may only be served by facilities of poor quality
- three sites scored extremely highly (including Clifton Park – site ID 117) and can be considered to be examples of good practice
- high quality sites, especially sites achieving scores within the upper quartile percentile should be protected, particularly if they have high/significant usage. The aspiration should be for all outdoor sports facilities to fall within this category and achieve the quality vision

- sites considered to be of high quality but with no or low/insignificant usage should be investigated further. Options to address this include re-designation to other open space types to increase its value

- nine sites scored 50% or below. These sites should be prioritised for enhancement to help achieve the quality vision set for this type of open space.

Setting provision standards – accessibility

9.14 The recommended local accessibility standards for provision of outdoor sports facilities has been summarised below. Full justification for the local standard is provided within Appendix H.

Accessibility Standard

Recommended standard
15-minute walk (720m) to local outdoor sports (eg. grass pitches, tennis courts or bowling greens) 20-minute drive (8km) to synthetic turf pitches and golf courses
Justification
There are several factors to consider in setting a standard for outdoor sports facilities. In particular, the range of facilities that lie within this typology makes it difficult to set a meaningful standard that can be applied across the board as per PPG17 requirements. For example, residents have significantly different expectations for synthetic turf pitches (for which they are willing to travel further) than they do for grass pitches (where there is a presumption of more localised provision). Given the findings from the local consultation, it is suggested that two standards are set, one for grass pitches, tennis courts and bowling greens, and a separate standard for STPs and golf courses to reflect local expectations regarding driving and walked to outdoor sport facilities. The 75% threshold level for those who expect to walk to grass pitches, tennis courts or bowling greens range is 15 minutes. As a consequence, a 15 minute walk time to these “local” outdoor sports facilities is considered an appropriate standard that will ensure quantitative improvements whilst also focusing on improving the quality of existing provision. This is in line with ensuring sustainable transport choices, accounts for the wide mix of facilities types within the standard to meet user expectations. The 75% threshold level for those who expect to drive to STPs and Golf Courses are both 20 minutes. Given the more specialist nature of these facilities, and the fact they are usually built in strategic locations to incorporate local demand, a 20 minute drive time standard is recommended. The use of school facilities for community use will be particularly important in the rural areas if the recommended standard is to be delivered.

Current provision - accessibility

9.15 Accessibility at each site was also assessed through a detailed site visit and the completion of a detailed pro forma that takes into account issues including whether the entrance to the site is easily accessible, the condition of the roads, paths and cycleways, where there is disabled access, how accessible is the site by public

transport, bicycle or walking, and whether there are clear and appropriate signs to the site.

9.16 The accessibility of existing outdoor sports facilities in the City is summarised in Table 9.4 below. It is important to note that site assessments are conducted at a snapshot in time and may not always be reflective of the accessibility of the site throughout the year.

9.17 Based on the accessibility scores obtained, the upper quartile score was 70%. The median was 67%, and the low quartile was 53%.

Table 9.4 – Selection of accessibility assessments results for outdoor sports facilities

Above upper quartile	70%+	(80%) - Lakeside Primary School – Urban East – Site ID 484 (77%) - Upper Poppleton Sports Ground – York North – Site ID 651
Median – Upper quartile	67%-69%	(67%) – Heworth Cricket Club – York North – Site ID 88 (67%) – Bootham School – Urban East – Site ID 462
Lower quartile - median	53%-66%	(60%) – Wiggington Playing Field – York North – Site ID 93 (53%) – Strensall Park Playing Field – York North – Site ID 752
Less than lower quartile	Below 53	(50%) – New Earswick Sports Club – York North – Site ID 576 (37%) – Craven Sports Ground – Urban West – Site ID 85

9.18 The key issues emerging from Table 9.4 include:

- Similar to the quality of outdoor sports facilities, there is a significant variation in the scores for accessibility to outdoor sports facilities
- Sites with high accessibility scores, especially sites achieving scores within the upper quartile percentile should be protected, particularly if they have high/significant usage and are of good quality
- those sites scoring below the average accessibility score should be prioritised for improvement. Seven sites scored below 45%. A space that is inaccessible is almost irrelevant to potential users and therefore may be of little value, irrespective of its quality.

Applying provision standards – identifying geographical areas

9.19 In order to identify geographical areas of importance and those areas with required local needs the quantitative provision of outdoor sport facilities across the City of York should be considered alongside the recommended local standard for accessibility. The quantity standards enable the identification of areas that do not meet the minimum provision standards, while the accessibility standards will help determine where those deficiencies are of high importance. Applying the standards together is a much more meaningful method of analysis than applying the standards separately and therefore helps with the prioritisation of sites. This will be discussed in greater detail in Section 12 'The Way Forward'.

Allotments

Definition

10.1. This includes all forms of allotments with a primary purpose of providing opportunities for people to grow their own produce as part of the long-term promotion of sustainability, health and social inclusion. This type of open space may also include urban farms.

10.2. Like other open space types, allotments can provide a number of wider benefits to the community as well as the primary use of growing produce. These include: -

- bringing together different cultural backgrounds
- improving physical and mental health
- providing a source of recreation
- wider contribution to green and open space.

Figure 10.1 Allotments West of Dunnington

10.3. The strategic context of allotments is set out in Table 10.1 overleaf.

Table 10.1 – Strategic Context -Allotments

Document Reviewed	Summary of key strategic drivers	Links to open space, sport and recreation study
City of York Council Allotment Strategy	The purpose of this strategy is to create an efficient, flexible, effective Allotments Service that reflects best practice in allotment management. This will enable Council allotment sites to be used to their full potential, whilst improving the service offered to allotment tenants. To deliver the Strategy, 10 aims have been identified. The aims have been drawn up in accordance with 'Growing in the Community - A Good Practice Guide for the Management of Allotments' and the Green Flag Park Award scheme. The intention is to use current best practices for green spaces and open areas and incorporate them in the management of allotment sites. The aims are in turn supported by a range of Objectives. How each objective will be delivered is then set out in the 5-year Action Plan through a series of actions and initiatives to be undertake over the 5-year period.	The Allotment Strategy highlights the need to safeguard and improve existing provision of allotments. This follows through from community-needs and will be built on through the consultation within this study.
City of York Development Control Local Plan	The Local Plan states that allotments are an important resource within the community, especially for those people with small gardens, or who lack a garden altogether. In addition, they can have a significant amenity and nature conservation role.	The nature of this typology is very much demand led. Any enhancement to existing provision should be matched with sufficient demand in order to sustain a high quality site.

Consultation

10.4. Consultation specific to allotments was undertaken using a variety of research techniques and findings have been used to inform the local standards ensuring they are reflective of local needs. Key themes emerging from consultations include:

- in total, 36% of the population felt that the level of provision of allotments was about right within York City
- attendees at the workshops felt that there was a distinct lack of provision across the City –with some sites containing waiting lists exceeding 2 – 3 years. Some plots have now been split into two in order to provide more residents with the opportunity to participate.
- 14% of people responding to the household survey would be interested in renting an allotment in York, indicating a demand for allotment provision
- the majority of residents in York perceive the quality of allotments to be average (55%). 35% feel the sites are good and 10% would rate them as poor.
- residents attending drop in sessions felt that the quality of allotments was varying. It was considered that regular inspections were essential to ensure that sites were of a good quality. New Lane Allotments, off Hamilton Drive were mentioned as an example of a well-maintained allotment. In contrast, there are perceived to be security concerns at Holgate and Glen Allotments, off Fourth Avenue allotments. At the workshops it was indicated that the quality of fencing, security and ancillary facilities at allotment sites is considered to be poor.
- some attendees at workshops commented on the use of allotments at school sites and the positive messages that this conveys. Despite this, there was still perceived to be a lack of awareness of the facilities provided.
- it was suggested at workshops that each allotment site should include the development of a community garden area, where all residents of the community can enjoy the benefits of allotments
- 66% of respondents to the household survey stated that walking would be the most popular travel method when visiting allotments. The majority of respondents would expect to travel up to 10 minutes to reach an allotment site (67%).

Setting provision standards - quantity

10.5. The recommended local quantity standards for allotments has been summarised overleaf. Full justification for the local standards is provided within appendix F.

Quantity Standard

Existing level of provision	Recommended standard
0.29 ha per 1000 population total	**0.31 ha per 1000 population total**
Justification	
Allotment provision is unevenly spread, with the highest levels evident in the York South. More generally, consultation suggests that the current level of supply is becoming insufficient across York, with 14% of survey respondents interested in owning / managing an allotment and more generally 18% of respondents thinking that the level of provision is not enough. This is further exacerbated by waiting lists at a number of sites (at the current time, there are less than 50 available full plots on the 15 directly managed City of York sites and approximately 150 people on waiting lists. A similar number of people are waiting for plots at parish and independent sites). As a consequence, the local standard has been set at the existing level of provision. When applied in the context of the accessibility standard and existing waiting lists, this will highlight further areas for investigation and enable locational deficiencies to be pinpointed.	

Current quantity provision

10.6. The provision of allotments in the City is summarised below in Table 10.2:

Table 10.2 – Provision of Allotments in York

Analysis Areas	Current Provision per 1000 population	Number of sites	Smallest site	Largest site	LDF Population (2029)	Provision per 1000 population (2029)	Future Balanced Against Local Standard (0.31 hectares per 1000 population)
City Centre	0.8940	0	-	-	6,785	0.00	**-2.10**
Urban East	0.1260	11	0.13	3.65	82,426	0.12	**-15.39**
Urban West	0.0891	6	0.67	4.04	60,631	0.16	**-9.00**
York South	0.5762	14	0.28	5.48	25,321	0.89	**14.70**
York North	0.0000	11	0.12	2.9	46,332	0.23	**-3.54**
Overall	0.1645	42	0.12	5.48	221,495	0.24	**-15.33**

10.7. The key issues emerging from table 10.2 include:

- the level of provision across the analysis areas varies substantially. The lowest level of provision per 1000 population is found in the City Centre, where there is currently no provision. In contrast, York South has 0.89 hectares per 1000 population
- based on the local standard of 0.31 hectares per 1000 population, all areas are predicted to have a quantitative deficiency by 2029 apart from York South. This analysis area contains the largest site in the City – Knavesmire Allotments that are 5.48 hectares in size.

Table 10.3 – Provision of allotments by ward

Ward	Pop	Provision of outdoor sports facilities (hectares)	Local Standard (ha/1000)	Per 1000 population current	TOTAL Requirement	Surplus / Deficiency
Clifton Ward	12,017	1.02	0.31	0.08	3.72	-2.70
Haxby and Wigginton Ward	12,468	1.2	0.31	0.10	3.86	-2.66
Hull Road Ward	8,269	0	0.31	0	2.56	-2.56
Westfield Ward	13,690	1.99	0.31	0.15	4.24	-2.25
Dringhouses and Woodthorpe Ward	10,733	1.24	0.31	0.12	3.33	-2.09
Guildhall Ward	6,676	0	0.31	0	2.07	-2.07
Strensall Ward	7,862	0.49	0.31	0.06	2.44	-1.95
Acomb Ward	7,729	0.77	0.31	0.10	2.40	-1.62
Wheldrake Ward	3,899	0	0.31	0	1.21	-1.21
Osbaldwick Ward	3,149	0	0.31	0	0.98	-0.97
Heworth without Ward	3,786	0.2	0.31	0.05	1.17	-0.97
Heslington Ward	4,122	0.58	0.31	0.14	1.28	-0.70
Rural West York Ward	10,286	3.02	0.31	0.29	3.19	-0.17

10.8. The key issues emerging from Table 10.3 include:

- a total of six wards have a shortfall greater than two hectares when assessed against the local quantity standards – with the largest shortfall being in Clifton ward
- four of the wards with a quantitative shortfall do not have any allotments at the current time – Hull Road, Guildhall, Wheldrake and Osbaldwick

Setting provision standards - quality

10.9. The recommended local quality vision for allotments is summarised below. Full justification for the local standard is provided in Appendix G.

Quality Standard

Recommended standard
'A well-kept, well managed and secure site that encourages sustainable development, bio-diversity, healthy living and education with appropriate ancillary facilities (eg provision of water and toilets) to meet local needs, clearly marked pathways and good quality soils. The site should be spacious providing appropriate access for all and should be promoted to ensure local community awareness".
Provision of allotments is demand driven. However, in times when the wider health agenda is important such sites need to be promoted. Good quality allotments with appropriate ancillary facilities that promote sustainable development will help attract more people to allotment sites.

Current provision – quality

10.10. The quality of existing allotments in the City is summarised in table 10.3. It is important to note that site assessments are conducted as a snapshot in time and may not always been reflective of the quality of the site throughout the year.

10.11. The application of the 25th percentile standard (set at a score of 72% on the site assessment of allotments) provides an indication of the desired level of quality suggested at each site and enables a comparison at sites across the City. Sites falling below and consequently where improvement is required. A full list of site scores can be found in the provision of allotments section of Appendix D.

10.12. The 5 highest and 5 lowest scoring sites are highlighted in figure 10.3 below. The median value is 67% and the lower quartile score is 60%.

Table 10.4 – Selection of quality scores for allotments

Above upper quartile	72%+	(86%) Pit Lane Allotments – York North - Site ID 759 (74%)– Clifton (Without) and Rawcliffe Allotments York North – Site ID 820
Median – Upper quartile	67%-72%	(70%) – Knavesmire Allotments – York South – Site ID 692 (68%) – Rufforth Allotments – York South – Site ID 777
Lower quartile - median	60%-67%	(66%) – Low Lane Allotments – York South – Site ID 719 (66%) – Hempland Lane, Heworth Allotments – Urban East - Site ID 711
Less than lower quartile	Below 60%	(48%)Cross Lane Allotments – York South – Site ID 732 (44%) Wigginton Allotments – York North – Site ID 695

10.13. The key issues arises from the table above are:

- there is a large variation in the quality of allotment sites across York that ranges from sites scoring 44% to 86%.
- three of the top five quality allotment sites are located in the York North analysis area. However, it also contains two of the lowest five scoring sites.
- Pit Lane allotments is the highest scoring site – achieving 86%.

Setting provision standards – accessibility

10.14. The recommended local accessibility standards for allotments has been summarised overleaf. Full justification for the local standard is provided within Appendix H.

Accessibility Standard

Recommended standard
15 MINUTE WALK TIME
Justification
The provision of allotments is very much a demand led typology and this should be reflected in the application of the accessibility and quantity standards. As such any deficiencies that are highlighted through the application of the study should be assessed further to indicate if there is any demand in that area. However, as a guide a standard has been set at 15 minutes walk time. Residents responding to the household survey indicated that they would expect to walk to allotments and a walk time has therefore been used in line with living a healthy lifestyle and targets to reduce the reliance on private transport. Given the 75% threshold level is for a 15 minute work, setting a standard at this level is in accordance with the PPG17 Companion Guide. This standard should be applied consistently across the rural and urban areas.

Current provision – accessibility

10.15. Accessibility at each site was also assessed through a detailed site visit and the completion of a detailed pro forma. This takes into account issues including whether the entrance to the site is easily accessible, the condition of the roads, paths and cycleways, whether there is disabled access, how accessible is the site by public transport, bicycle or walking, and whether there are clear and appropriate signs to the site.

10.16. The accessibility of existing provision is summarised in table 10.5 overleaf:

Table 10.5 – Selection of accessibility scores of allotments in York

Above upper quartile	60%+	(76.7%) Knavesmire Allotments – York South – Site ID 692 (67.7%) Pit Lane Allotments – York North – Site ID 759
Median – Upper quartile	56.7%-60%	(60%) Rufforth Allotments – York North – Site ID 777 (60%) Albemarte Road Allotments – York South – Site ID 705
Lower quartile - median	51.65%-56.7%	(53.3%) Huntingdon Road Allotments – Urban East – Site ID 189 (53.3%) Low Lane Allotments – York South – Site ID 726
Less than lower quartile	Below 51.65%	(46.7%) Cross Lane Allotments – York South – Site ID 732 (43.3%) Wigginton Allotments – York North – Site ID 695

10.17. Key issues from the assessment of site specific accessibility in York include:

- the median score was 56.7%. The upper quartile score was 60%, and the lower quartile score was 51.65%. This illustrates that the accessibility of allotments sites is relatively consistent across the 42 sites.
- Knavesmire allotments obtained the highest accessibility score of all the sites assessed (76.7%), and can be considered to be an excellent example of an accessible allotment. Sites with high accessibility scores, especially sites achieving scores within the upper quartile percentile should be protected, specifically if they have high/significant usage.
- those sites scoring in the lower quartile should be prioritised for improvement. Three sites scored below 45%. These sites should be prioritised for enhancement. A space that is inaccessible is almost irrelevant to potential users and therefore may be of little value, irrespective of its quality.

Applying provision standards – identifying geographical areas

10.18. In order to identify geographical areas of importance and those areas with required local needs the quantitative provision of allotments should be considered alongside the recommended local standard for accessibility. The quantity standards enable the identification of areas that do not meet the minimum provision standards, while the accessibility standards will help determine where those deficiencies are of high importance. Applying the standards together is a much more meaningful method of analysis than applying the standards separately and therefore helps with the prioritisation of sites. This will be discussed in greater detail in Section 12 'The Way Forward'.

Cemeteries and Churchyards and Green Corridors

11.1. Cemeteries and Churchyards and Green Corridors are all open space typologies recommended by the PPG17 Companion Guide for inclusion within a local audit and needs assessment.

11.2. For each of these typologies, it is not possible to produce a full range of quantity, quality and accessibility standards and as a consequence they have been included within the same section of this report.

11.3. The explanations as to why some local standards cannot be produced for these typologies are discussed in more detail below.

Cemeteries and Churchyards - Introduction

11.4. Many historic churchyards provide important places for quiet contemplation, especially in busy urban areas, and often support biodiversity and interesting geological features. As such many can also be viewed as amenity green spaces. Unfortunately, many are also run-down and therefore it may be desirable to enhance them. As churchyards can only exist where there is a church, **the only form of provision standard that will be required is a qualitative one**.

11.5. For Cemeteries, PPG17 Annex states "every individual cemetery has a finite capacity and therefore there is steady need for more of them. Indeed, many areas face a shortage of ground for burials. The need for graves, for all religious faiths, can be calculated from population estimates, coupled with details of the average proportion of deaths which result in a burial, and converted into a quantitative population-based provision standard."

Figure 11.1 Church to west of River Foss

Cemeteries and Churchyards - Consultation

11.6. Consultation on the provision of churchyards and cemeteries in York was undertaken through a variety of methods. The emerging findings, which contribute to the formation of the local quality standard and value assessment include:

- 55% of respondents to the household survey do not use churchyards and cemeteries. However, 11% of respondents use them more than once a month and they are the most frequently used open space for 3% of residents.
- 41% of respondents to the household survey believe that the quality of churchyards and cemeteries is good, with a further 51% thinking that the quality is average. This means that only 8% of respondents think that sites are poor.
- for those residents who visit cemeteries and churchyards more regularly than any other typologies, the majority currently drive to facilities and travel between 5 and 10 minutes. The most commonly mentioned ideal features are well kept grass, clean / litter free and flowers / trees.

Cemeteries and Churchyards – Current Position

11.7. There are currently 48 churchyards and cemeteries in York.

Table 11.1 Current Provision of Cemeteries and Churchyards

Analysis Areas	Current Provision	Number of sites	Smallest site (Hectares)	Largest site (Hectares)
City Centre	0.69	5	0.09	0.23
Urban East	2.06	6	0.13	0.89
Urban West	0.2	2	0.08	0.12
York South	29.38	16	0.1	9.6
York North	10.71	19	0.11	2.47
Overall	43.04	48	0.08	2.47

- the overall level of provision equals 43.04 hectares, producing an average site of 0.9 hectares per cemetery and/or churchyard. The size of sites varies significantly across the analysis areas, ranging from 0.08 hectares to 9.6 hectares
- current provision is predominantly located in York South and York North – which contain 73% of sites.

11.8. The quality of each site has been assessed through a detailed site visit and the completion of a detailed pro forma. It is important to note that the quality score represents a snapshot in time and records only the quality of the site at the time of the site visit. The median score was 78%. The upper quartile level is equivalent to a score of 82.5%, and the lower quartile level is 70%.

11.9. The quality of cemeteries across the City is set out in Table 11.2 below:

Table 11.2 – Selection of quality scores for cemeteries and churchyards in York

Above upper quartile	82.5%+	(92%) St Everilda's Church – York North – Site ID 780 (92%) St Mary's Church – York North – Site ID 740
Median – Upper quartile	78%-82.5%	(80%) Fordlands Road Cemetery – York South – Site ID 731 (80%) All Saints Church – York South – Site ID 775
Lower quartile - median	70%-78%	(70%) St Wilfreds Garrisons Church – York North – Site ID 749 (76%) Holy Trinity Church – York North – Site ID 754
Less than lower quartile	Below 70%	(56%) York Cemetery – York South – Site ID 718 (52%) Haxby and Wigginton Cemetery – York North –Site ID 735

11.10. The key issues arises from the table above are:

- there is a large variation in the quality of cemeteries and churchyard sites across York that ranges from sites scoring 52% to 92%.
- Four of the top five quality allotment sites are located in York North analysis area. However, it also contains two of the bottom five scoring sites.
- St Everilda's and St Mary's Church are the highest scoring sites – each achieving 92%.

Cemeteries and Churchyards - Setting provision standards

11.11. In setting local standards for churchyards and cemeteries, it is only appropriate to set a quality vision and take into account any national or local standards. Full indication of consultation and justifications for the recommended local standards are provided within Appendix G. The recommended local standard has been summarised overleaf:

Quality Standard (see Appendix G)

Recommended standard – CEMETERIES AND CHURCHYARDS
"A clean and well-maintained site providing long-term burial capacity, an area of quiet contemplation and a sanctuary for wildlife. Sites should have clear pathways, varied vegetation and landscaping and provide appropriate ancillary accommodation (e.g. facilities for flowers litter bins and seating.) Access to sites should be enhanced by parking facilities and by public transport routes where possible, particularly in urban areas"
Cemeteries and churchyards can provide an important open space function - particularly in rural areas where they may be the only open space in the village. However, it is essential that sites are regularly maintained with clear footpaths so as to increase the ease of access and safety for those who visit the sites. The wildlife benefits of these sites were wildly recognised across consultations.

Green Corridors – Introduction

11.12. The Green Corridors typology encompasses towpaths along canals and riverbanks, cycleways, rights of way and disused railway lines. Green corridors have a primary purpose of providing opportunities for walking, cycling and horse riding whether for leisure purposes or travel and opportunities for wildlife migration.

11.13. In addition to providing recreational routes in their own right, green corridors play an important role in linking open spaces together, providing a green infrastructure network across the City. Green corridors are an important resource linking the urban areas with accessible countryside.

11.14. The Local Plan (2005) states in policy NE8 that planning permission will not be granted for development, which would destroy or impair the integrity of green corridors and stepping stones. Conversely, development that ensures the continuation and enhancement of green corridors for wildlife will be favoured.

Green Corridors - Consultation

11.15. Consultation on the provision of green corridors in York was undertaken through a variety of methods. The emerging findings, which contribute to the formation of the local quality standard and value assessment include:

- 69% of respondents to the household survey use green corridors more than more a month – illustrating their importance to local residents. Furthermore, 16% of respondents use green corridors more regularly than any other type of open space.

- 37% of respondents to the household survey believe that the quality of green corridors is good, with a further 50% thinking that the quality is average. This means that only 13% of respondents think that sites are poor.

- other consultation highlighted concerns that the sites are often frequented by young people, (relating back to a lack of provision for this age group), this can act as a barrier for people wanting to access green corridors who view their

presence of young people as intimidating. Addressing this problem may further increase the current rate of usage. This point also relates to the problems experienced by residents who rated green corridors as their most frequently used open space.

- For those residents who use green corridors more regularly than any other typologies, the majority currently walk to facilities and travel less than five minutes. The most commonly mentioned ideal features are clean and litter free, natural features and footpaths.

Green Corridors - Setting provision standards

11.16. The Annex A of PPG17 – Open Space Typology states "the need for Green Corridors arises from the need to promote environmentally sustainable forms of transport such as walking and cycling within urban areas. This means that there is no sensible way of stating a provision standard, just as there is no way of having a standard for the proportion of land in an area which it will be desirable to allocate for roads"

11.17. As a consequence, green corridors have not been audited as a separate typology, but have instead been included within the audit of natural and semi natural open spaces, due to the similarity between the two.

11.18. In setting local standards for green corridors, it is only appropriate to set a quality vision and take into account any national or local standards. Full indication of consultation and justifications for the recommended local standards are provided within Appendix G. The recommended local standard has been summarised overleaf:

Quality Standard (see appendix G)

Recommended standard – GREEN CORRIDORS
"Linear open spaces should be clean and litter-free, safe and convenient corridors with clear pathways, linking major residential areas, open spaces, urban centres, leisure facilities and employment areas, that promote sustainable methods of transport. Appropriate ancillary facilities such as litter, dog bins and seating in appropriate places with signage to and within the sites should be featured to encourage access for all. The corridor should also seek to encourage biodiversity and wildlife habitats, enabling the movement of both wildlife and people between open spaces, linking in specifically with natural areas of open space."
It is important that any new provision meets this local quality standard that incorporates all Council visions and public aspirations. While green corridors have an important recreational role, it is important to ensure that there is a balance between recreational and wildlife / biodiversity to maximise the role these assets play. This was recognised by local residents, particularly when considering the value of local linkages between natural and semi natural areas. It is important that green corridors are promoted, as a lack of awareness was raised as a key barrier to the usage of facilities. If sites are not maintained properly, it is likely to discourage people from using them.

Applying provision standards

11.19 Given that it is not appropriate to set any local quantity or accessibility standards. It is also not appropriate to state areas of deficiency or need.

The Way Forward – PPG17 steps 4 and 5

Background

12.1 As detailed in Section 2, the PPG17 Companion Guide sets out a logical five-step process for undertaking a local assessment of open space.

12.2 This report and associated appendices summarise the key findings of stages 1 and 2, and culminating in the setting of provision standards:

- Step 1 – Identifying Local Needs
- Step 2 – Auditing Local Provision
- Step 3 – Setting Provision Standards

12.3 These standards are derived directly from the findings of the local needs assessment and audit and have been outlined in this report.

12.4 Steps 1-3, as undertaken, form the first phase in developing an open space strategy. It enables local standards to be agreed and will be used to inform the Core Strategy Issues and Options.

12.5 Once the local standards have been approved, further work will be undertaken in the form of Steps 4 and 5, to provide detailed information on the application of the provision standards, both in terms of quality and quantity, but also spatially:

- Step 4 – Applying Provision Standards; and
- Step 5 – Drafting Policies – recommendations and strategic priorities.

12.6 The implementation of steps 4 and 5 will lead to the production of the open space strategy, which will identify future priorities for the delivery of open space across the City.

12.7 Completion of steps 4 – 5 will inform further, more detailed stages in the LDF and will be undertaken in due course.

12.8 The processes that will be followed as part of the production of the open space strategy (following adoption of the local standards) are set out below.

Step 4 - Applying the recommended local standards

12.9 Local standards have been recommended for quality, quantity and accessibility. Following agreement of these standards, these standards will be used to:

1) Identify areas deficient in accessibility

- deficiencies in accessibility are defined by applying the local derived accessibility standards to give an indication of those areas served and not served by existing provision. Those areas that are outside the distance threshold of ALL existing open spaces or sport and recreation facilities will be prioritised for new provision

2) Identify areas of quantitative deficiency or surplus

- areas of quantitative deficiency or surplus can be identified through the application of the quantity standard, either to a large geographical area, or more specifically to the population within the effective catchment of each different type of open space or sport or recreation facility for each form of provision

3) Identify quality deficiencies and value of site

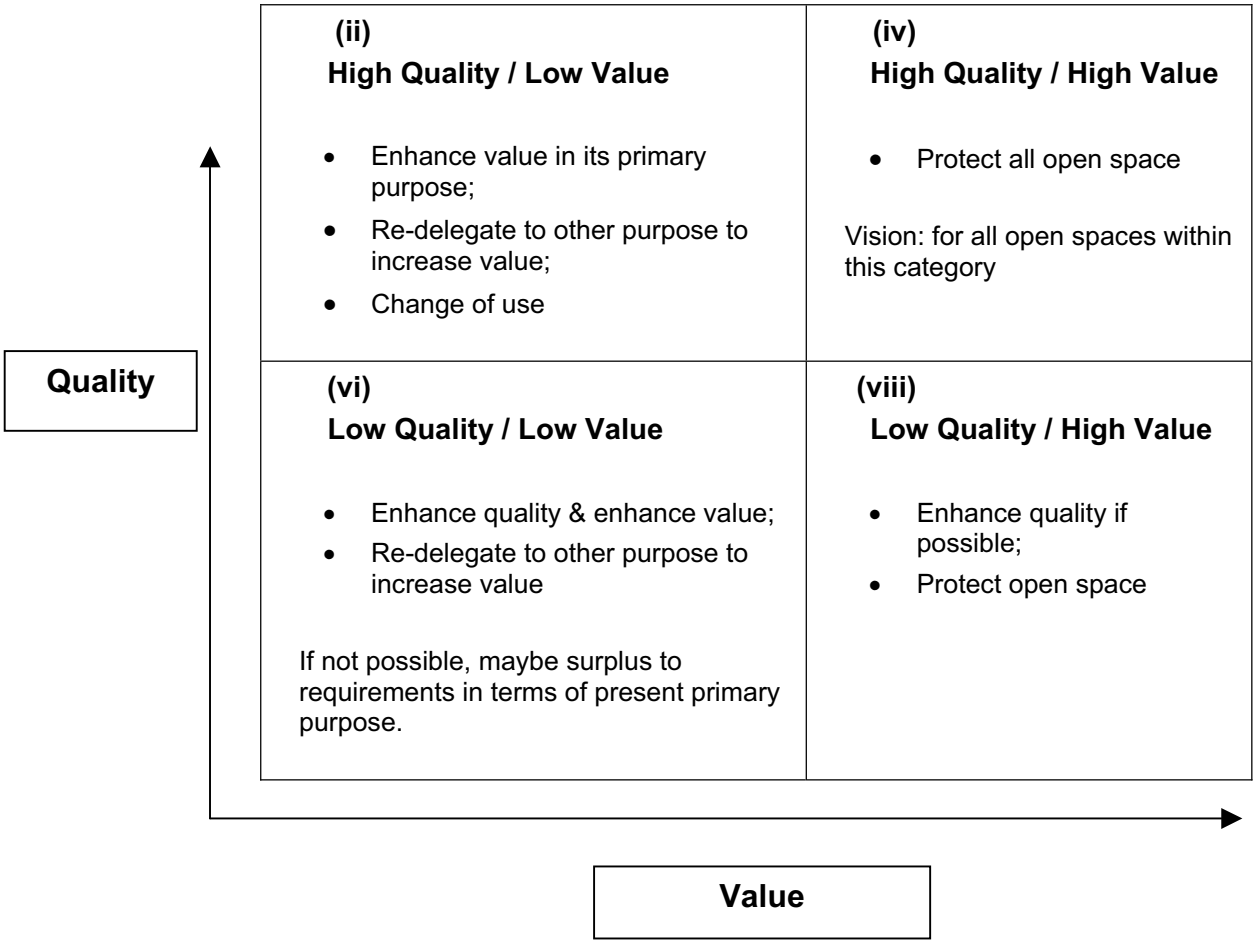
- the site assessment data produced as part of stage 3 will be plotted on the same maps as the accessibility assessment by coding spaces or facilities in terms of their quality and **value**. This will spatially identify those open spaces or sport and recreation facilities most in need of enhancement and also put them in the context of overall accessibility

- as noted in PPG17, **value** is an entirely different and separate concept from quality, and relates mainly to context (in terms of site accessibility and local quantity of provision, level and type of use and the wider benefits). The initial site assessments undertaken as part this study provide the majority of the information required in terms of wider benefits etc.

- when taking decisions about specific sites, consideration should be given to both the value of the individual site and the quality of the site. Without combining these two factors, it is impossible to identify those spaces or facilities which should be given the highest level of protection by the planning system, those which require enhancement in some way and those which may no longer be needed for their present purpose.

12.10 Figure 14.1 below illustrates the various outcomes of combining value and quality and their implications that will be investigated as part of the development of the open space strategy.

Figure 12.1 – Assessing the Value of Open Space Sites



4) Identify the Spatial Distribution of Unmet Needs

- unmet need can be summarised as:
  - areas outside the distance threshold of existing facilities or spaces
  - areas within the distance threshold of existing provision where there is a quantitative deficiency in provision
  - existing facilities or spaces that do not meet the relevant quality standard.
- it is important however that the appropriate weight is afforded to identified deficiencies. For example, where a significant quantitative and accessibility deficiency is identified, it is a priority to identify sites to meet this deficiency. However, where there is a lower level of deficiency or there is either a quantitative or accessibility deficiency but not both, if sites can be identified to meet this deficiency, they should be considered, but not prioritised to the same degree. This will be considered as part of the open space strategy.

5) Forecast Future Needs

- in order to complete stages 1-3 some assumptions have been made regarding the future population in order to estimate the amount of future provision required over the new plan period (up to 2029). It is essential that the application of local standards considers future need in addition to existing unmet deficiencies and areas of surplus. This will include consideration of planned changes in provision and the likely location of future population growth.

Step 5 - Drafting Policies

12.11 In accordance with the PPG17 Companion Guide, a strategic framework for the planning, delivery, management and monitoring of open space, sport and recreation facilities should have four basic components, specifically:

- existing provision to be protected
  - where the existing level of provision is below or the same as the recommended quantity standard sites should be protected to ensure that the situation is not made worse over time whilst remedial action is planned
- existing provision to be enhanced
  - there are two discrete instances where existing provision may be in need of enhancement. In areas where there is a quantitative deficiency of provision but no accessibility issues the Council may wish to increase the capacity of existing provision. Alternatively, in areas where facilities or spaces do not meet the relevant quality standards, enhancements will be required. Site assessments will inform qualitative improvements.
- existing provision to be relocated
  - in order to meet local needs more effectively or make better overall use of land it may be necessary to relocate existing sites
- areas where new provision should be considered
  - new sites should be located either in areas within the accessibility catchments of existing provision but where there is a quantitative deficiency or in areas outside of catchments. More generally, the Council should deliver a plan led approach to significant housing growth and open space and test potential housing locations against the findings of the open space, sport and recreation study.

Funding opportunities – developer contributions

12.12 Whilst locally determined provision standards (as developed in stage 3) can be used as a basis for planning conditions or obligations in appropriate circumstances, it is only through the application of these standards that what is appropriate or otherwise can be determined.

12.13 PPG17 states that the need for either on site provision or developer contributions towards off-site provision requires the application of the adopted provision standards within the context of defined areas of accessibility, quality or quantity deficiency or

surplus in order to determine the need for either additional provision or the enhancement of existing provision.

12.14 In principle, planning authorities will be justified in seeking either on-site provision or contributions towards new off-site provision or the enhancement of existing off-site provision, for the full range of open spaces, sport and recreation facilities for which they have adopted provision standards. The relative priority of different forms of provision should be informed by the assessment of local needs and this is the main objective of stage 4 of the PPG17 process.

Summary

12.15 The completion of a local needs assessment and audit, and the subsequent use of the findings of these stages to produce local standards provides a sound basis upon which to develop an open space strategy.

12.16 The application of the standards will enable the identification of key issues and will drive the future delivery of open space provision across the City of York.

City Development
City of York Council
9 St Leonards Place
York
YO1 7ET
Tel (01904) 551464
Email: citydevelopment@york.gov.uk

Annex B – Typology of Open Space

The following definitions of open space are those which are used in the 'City of York Council – Draft Open Space, Sport and Recreation Study'.

Typology	**Definition**
City Park	These are larger strategic city parks and country parks (eg: Rowntree Park)
Local Park	These are smaller more localised parks and formal gardens
Natural & Semi Natural areas	Woods, Nature Reserves and unmanaged green spaces such as scrubland
Green Corridors	These are footpaths, canal towpaths, bridleways and cycleways
Amenity Green Space	These are small or large green spaces often found amongst housing estates (eg. village greens)
Provision for children	These are equipped play areas for children (eg. swings, slides and climbing frames)
Provision for teenagers	These range from youth shelters to skate parks and mulit use games areas
Outdoor Sports Facilities	Grass pitches, bowling greens, tennis courts and golf courses
Allotments	Public or private open spaces dedicated to growing produce and gardening
Cemeteries and churchyards	Open and closed burial grounds and cemeteries

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