

JBA consulting

Appendix A

A.1 Planning Framework and Flood Risk Policy

A.1.1 EA Floods Directive & the Flood Risk Regulations

The European Floods Directive (2007) sets out the EU's approach to managing flood risk and aims to improve the management of the risk that floods pose to human health, the environment, cultural heritage and economic activity. The Directive was translated into English law by the Flood Risk Regulations which require LLFAs and the EA to produce Flood Risk Management Plans (FRMPs).

The Directive puts in place a six-year cycle of producing Preliminary Flood Risk Assessments (PFRAs) with the aim of identifying significant Flood Risk Areas; preparing flood hazard and risk maps; and preparing FRMPs. The first six-year cycle was completed in December 2015 and the second six-year cycle is currently underway.

PFRAs should cover the entire LLFA area for local flood risk (focusing on ordinary watercourses, surface water and groundwater flooding). Where significant Flood Risk Areas are identified using the national approach (and locally reviewed), the LLFA is then required to undertake flood risk hazard mapping and to produce FRMPs. FRMPs are also completed for each RBD in England and Wales by the EA.

The FRMP should consider objectives for flood risk management (reducing the likelihood and consequences of flooding) and measures to achieve those objectives. Significant Flood Risk Areas were not identified in Sunderland, therefore SCC was not required to produce a FRMP. A FRMP was however completed by the EA for the Northumbria RBD. See Section A.1.4.

Figure A.1-1: EU Floods Directive



The EA has implemented one of the exceptions for creating PFRAs, etc. for Main Rivers and coastal flooding, as they already have mapping (i.e. EA Flood Map for Planning (Rivers and Sea), Risk of Flooding from Rivers and Sea Map) and plans (i.e. CFMPs, SMPs) in place to deal with this. The EA has therefore focused their efforts on assisting LLFAs through this process.

A.1.2 SCC Preliminary Flood Risk Assessments¹

The first cycle PFRA for SCC was submitted to the EA in June 2011. The PFRA provides a high-level overview of local flood risk, from sources including surface water, groundwater, ordinary watercourses and canals.

The second cycle PFRA, reviewed during 2017, used all relevant current flood risk data and information to update the 2011 version and was agreed with the EA in December 2017.

The update, using the PFRA methodology, based on the EA's Final PFRA Guidance and DEFRA's Guidance on selecting Flood Risk Areas, did not identify any Flood Risk Areas within the SCC area. The 2017 update states that there have been no changes to the assessment of risk since the 2011 version and the significant flood events were updated

¹ SCC PFRA:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/698473/PFRA_Sunderland_City_Council_2017.pdf

to include all those occurring post 2011. There was no new evidence to suggest the risk of flooding has changed since 2011.

A.1.3 Catchment Flood Management Plans (CFMPs)

The CFMPs were carried out by the EA in 2009 and were designed to establish flood risk management policies which will deliver sustainable flood risk management for the long term. The CFMPs were used by the EA to help direct resources to where there are areas of greatest risk.

The CFMPs contain useful information about how the catchments work, previous flooding and the sensitivity of the river systems to increased rainfall. The EA draw on the evidence and previous measures and proposals set out in the CFMPs to help develop the FRMPs for RBDs. SCC is included within the River Wear CFMP² and the River Tyne CFMP³.

A.1.4 Flood Risk Management Plans (FRMPs)

Following on from the CFMPs, completed in 2009, FRMPs are designed to set out the risk of flooding from rivers, sea, surface water, groundwater and reservoirs within each RBD and to detail how RMAs will work with communities to manage flood risk up to 2021 for the current cycle, at the time of writing.

Both the River Basin Management Plans (RBMP) and FRMPs have been developed by the EA in tandem to ensure that flood defence schemes can provide wider environmental benefits during the same six-year cycle. Both flood risk management and river basin planning form an important part of a collaborative and integrated approach to catchment planning for water. Each EU member country must produce FRMPs as set out in the EU Floods Directive 2007.

SCC is within the Northumbria River Basin District which covers approximately 9,000 km² from the Scottish border to just south of Guisborough and from the Pennines to the North Sea. SCC was not required to produce a FRMP for its own area following the PFRA process whereby significant flood risk areas were not identified. There are two main river catchments in SCC; primarily the River Wear and a small section in the River Don catchment, which is a tributary of the River Tyne. The majority of the SCC area lies within the River Wear catchment and is therefore the most important for SCC in terms of planning and flood risk.

Northumbria River Basin District Flood Risk Management Plan, 2016⁴

The Northumbria RBD comprises four river catchments that are largely natural in their upper catchments with further downstream being artificially modified as a result of agriculture, industry and urbanisation. There are almost 13,000 people at high risk of surface water flooding (more than a 1 in 30-year chance of being flooded in any year) and over 6,000 people at high risk of flooding from rivers and sea (more than a 1 in 30-year chance of being flooded in any year) within the Northumbria RBD.

River Wear catchment

More than 620,000 people live within the catchment area, the majority of residents live within the urban areas in the east of the catchment. The main source of flooding in the catchment is from the rivers, there are no known groundwater flooding problems. Given the large urban areas in the east of the catchment there are some instances of surface water flooding where intense rainfall can exceed the capacity of the urban drainage systems. The River Wear has a long and varied flood history with reports as early as 1316 with regular floods recorded from the 1700s onwards in the Durham

² https://www.gov.uk/government/publications/river-wear-catchment-flood-management-plan

³ https://www.gov.uk/government/publications/river-tyne-catchment-flood-management-plan

⁴ https://www.gov.uk/government/publications/northumbria-river-basin-district-flood-risk-management-plan

area. Due to the differences in the catchments between the main River Wear and the tributary river catchment, wide scale floods are rare and flooding generally occurs on either the Wear, or the tributaries, but rarely on both at the same time.

Figure A.1-2 is an extract from Northumbria RBD FRMP showing an overview of the River Wear catchment.



Figure A.1-2: River Wear management catchment (Northumbria RBD FRMP)

The Northumbria RBD FRMP summarised various measures to help manage flood risk in the River Wear catchment. Those that may apply within the SCC authority area include:

Protection from risk:

- Providing more natural flood storage within the catchment to reduce peak flows downstream; and
- Preparing suitable measures to ensure services and assets are resilient and are able to remain open or be opened rapidly during and after flood events.

Prevention of risk:

- Developing a register of structures or features which are likely to have a significant effect on flood risk; and
- Seeking opportunities within the catchment for habitat creation and to improve floodplain connectivity.

Preparation for risk:

- Considering the vulnerability of key infrastructure such as roads, schools and community buildings; and
- Working with natural process opportunity maps to show where natural management measures could assist in reducing flood risk. Also maps showing

how the catchment can both adapt and become more resilient to the impacts of climate change.

River Tyne catchment

The Tyne catchment covers an area of 2,926 km² and has a population of just over one million people. The major urban areas of Newcastle, Gateshead and some of the major economic and development centres within the north east lie within the eastern area of the catchment. The Tyne catchment covers areas within SCC such as; north of Washington including Donwell, Springwell, and Usworth; areas on the northern boundary including Downhill and Hylton Red House; and one coastal area at South Bents. Despite the rapid growth in industry, much of the area is still high quality agricultural land, which is also important to the local economy. The heavily urbanised catchments are the Ouseburn, Team and Don.

River Tyne catchment Overview

Figure A.1-3 is an extract from Northumbria RBD FRMP showing an overview of the River Tyne catchment.

Figure A.1-3: River Tyne management catchment (Northumbria RBD FRMP)

The Northumbria RBD FRMP summarised various measures to help manage flood risk in the River Tyne catchment. Those that may apply within the SCC include: Protection from risk:

• Seek opportunities within the catchment to create habitat creation opportunities and to improve flood plain connectivity on the River Don; and

• Carry out an assessment of water company assets to ensure they are operational and resilient at all times across the catchment.

Prevention of risk:

• Developing a register of structures which may impact on flood risk and ensure that such structures are maintained.

Preparation of risk:

• Ensure that key infrastructure can operate during flooding or recover rapidly after flooding. This will assist in making communities more resilient to flooding and speeds up the recovery process.

A.1.5 Flood & Water Management Act (FWMA)

The Flood & Water Management Act (FWMA) was established in April 2010. It aims to improve both flood risk management and the way we manage our water resources.

The FWMA has created clearer roles and responsibilities and helped to define a more risk-based approach to dealing with flooding. This included the creation of a lead role for LAs, as LLFAs, designed to manage local flood risk (from surface water, groundwater and ordinary watercourses) and to provide a strategic overview role of all flood risk for the EA.

The content and implications of the FWMA provide considerable opportunities for improved and integrated land use planning and flood risk management by LAs and other key partners. The integration and synergy of strategies and plans at national, regional and local scales, is increasingly important to protect vulnerable communities and deliver sustainable regeneration and growth.

The FWMA gives Risk Management Authorities (RMA) specific powers and duties for local flood risk management. A duty is something the RMA is legally obliged to do; a permissive power can be used at the RMA's discretion. All RMAs have a duty under Section 13 of the FWMA to cooperate with one another when exercising functions relating to flood and coastal erosion risk management.

Table A.1-1 provides an overview of the key LLFA responsibilities as a RMA, under the FWMA.

FWMA responsibility	Description of duties and powers	LLFA status
Local Flood Risk Management Strategy (LFRMS)	Under Section 9 of the FWMA, the LLFA has a responsibility to develop, maintain, apply and monitor a local strategy for flood risk management in its area. The local strategies will build on information such as national risk assessments and will use consistent risk-based approaches across different LA areas and catchments. The local strategy will not be secondary to the national strategy; rather it will have distinct objectives to manage local flood risks important to local communities.	Final version produced 2016 (see Section A.6.3). Note the LFRMS will require updating in 2020 to stay consistent with the new National Strategy published July 2020.
Duty to contribute to sustainable development	The LLFA has a duty to contribute towards the achievement of sustainable development.	Ongoing
Duty to comply with national strategy	The LLFA has a duty to comply with national flood and coastal risk management strategy principles and objectives in respects of its flood risk management functions.	Ongoing (see above)





FWMA responsibility	Description of duties and powers	LLFA status	
Duty to drain the local highway network	The Highways Authority has a duty under the Highways Act (1980) to drain the local Highway network (not Trunk roads) of surface water where it creates a nuisance. Where drainage infrastructure is provided to assist in this duty then the Highways Authority must maintain it to be fit for purpose. Maintenance of roadside drainage ditches may be the direct responsibility of the Highways Authority or the adjacent landowner.	Ongoing	
Emergency planning	A LLFA is required to play a lead role in emergency planning and recovery after a flood event.	Northumbria Local Resilience Forum (see Section 7.1.1 of the main report)	
Community involvement	A LLFA should engage local communities in local flood risk management issues. This could include the training of community volunteers, the development of local flood action groups and the preparation of community flood plans and general awareness raising around roles and responsibilities plans.	Various ongoing - Northumbria Community Risk Register (see Section 7.1.2 of the main report)	
Planning Requirements for SuDS	Sustainable Drainage Systems (SuDS) are a planning requirement for major ⁵ planning applications of 10 or more residential units or equivalent commercial development schemes with sustainable drainage. The LLFA is now a statutory planning consultee and it will be between the LPA and the LLFA to determine the acceptability of these proposed sustainable drainage schemes subject to exemptions and thresholds. Approval must be given before the developer can commence construction. Planning authorities should use planning conditions or obligations to make sure that arrangements are in place for ongoing maintenance of any SuDS over the lifetime of the development.	Follow LASOO Guidance and LFRMS	
Latest changes to FWMA legislation ⁶			

Table A.1-1: Key LLFA responsibilities under the FWMA

⁶ http://www.legislation.gov.uk/ukpga/2010/29

⁵ For housing, development where 10 or more homes will be provided, or the site has an area of 0.5 hectares or more. For non-residential development it means additional floorspace of 1,000m2 or more, or a site of 1 hectare or more, or as otherwise provided in the Town and Country Planning (Development Management Procedure) (England) Order 2015.

A.2 Flood and water focused policies and plans

A.2.1 25 Year Environment Plan

This Plan sets out Government action to help the natural world regain and retain good health. It aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats. It calls for an approach to agriculture, forestry, land use and fishing that puts the environment first. The Plan also sets out how government will tackle the effects of climate change, considered to perhaps be the most serious long-term risk to the environment given higher land and sea temperatures, rising sea levels, extreme weather patterns and ocean acidification. The Plan aims to show that government will work with nature to protect communities from flooding, slowing rivers and creating and sustaining more wetlands to reduce flood risk and offer valuable habitats.

Focusing on flood risk, Government has updated the national flood and coastal erosion risk management strategy for England to produce a draft that is, at the time of writing, progressing through a consultation stage; the aim being to publish the final strategy in Spring 2020, which looks to strengthen joint delivery across organisations. In terms of funding, government will look at current partnership arrangements ahead of a review of funding needs beyond 2021, seeking to attract more non-public sector investment and make sure all relevant agencies are able to respond quickly and effectively to support communities if and when flooding does occur. The Plan states that the EA will use its role in statutory planning consultations to seek to make sure that new developments are flood resilient and do not increase flood risk.

For flood mitigation, government will focus on using more natural flood management solutions; increasing the uptake of SuDS, especially in new development; and improving the resilience of properties at risk of flooding and the time it takes them to recover should flooding occur.

25 Year Environment Plan

	Our 25-year goals
We will	achieve:
•	Clean air
	Clean and plentiful water
	Thriving plants and wildlife
•	Reduced risk of harm from environmental hazards such as flooding and drought
•	Using resources from nature more sustainably and efficiently
•	Enhanced beauty, heritage and engagement with the natural environment
We will a	manage pressures on the environment by:
•	Mitigating and adapting to climate change
•	Minimising waste
	Managing exposure to chemicals
	Enhancing biosecurity
in.	

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Our policies will focus on:

- Using and managing land sustainably
- Recovering nature and enhancing the beauty of landscapes
- · Connecting people with the environment to improve health and wellbeing
- · Increasing resource efficiency, and reducing pollution and waste
- Securing clean, productive and biologically diverse seas and oceans
- Protecting and improving the global environment

Figure A.2-1: Main goals and policy areas the Plan is intended to help work towards

A.2.2 Water Framework Directive, Water Environment Regulations and River Basin Management Plans

The purpose of the Water Framework Directive (WFD), which was transposed into English Law by the Water Environment Regulations (2003), is to deliver improvements across Europe in the management of water quality and water resources through RBMP. The SCC area is covered by the Northumbria RBD RBMP, managed by the EA and published in 2015.

Water quality and flood risk can go hand in hand in that flood risk management activities can help to deliver habitat restoration techniques. The EA is responsible for monitoring and reporting on the objectives of the WFD on behalf of Government. They work with Government, Ofwat, local government, non-governmental organisations (NGOs) and a wide range of other stakeholders including local businesses, water companies, industry and farmers to manage water⁷.

The second management cycle of the WFD⁸ has begun and the second RBMPs were completed in 2015, building upon the first set completed in 2009. RBMPs are designed to address the pressures facing the water environment in the river basin management plan districts and the actions that will address them. The plans describe required objectives and measures to protect and improve the water environment over the next 20 years and aim to achieve WFD targets from 2015 onwards to 2021.

The RBMPs, like the Catchment Flood Management Plans, are important documents relevant to the development of the SFRA. The SFRA should take into account the wider catchment flood cell aims and objectives and understand how it can potentially contribute to the achievement of them.

The main responsibility for SCC as the LPA and LLFA, is to work with the EA to develop links between river basin management planning and the development of local authority plans, policies and assessments. In particular, the general programme of actions (measures) within the RBMPs relevant to SCC highlight the need for:

- Strategic working with Northumbrian Water to seek partnership opportunities for improved infrastructure management e.g. reduced Combined Sewer Overflows (CSOs);
- Water Cycle Studies to promote water efficiency in new development through regional strategies and local plans;
- Surface Water Management Plan implementation;
- Consideration of the WFD objectives (achieving good status or potential as appropriate) in the spatial planning process, including LDDs and Sustainable Community Strategies; and
- Promotion of the wide scale use of SuDS in new development.

A.3 Other related plans and policies

A.3.1 Catchment partnerships

The Catchment Based Approach (CaBA) embeds collaborative working at a river catchment scale to deliver cross cutting improvements to our water environments. The CaBA partnerships drive cost-effective, practical delivery on the ground, resulting in multiple benefits including reduced flood risk and resilience to climate change.

Catchment partnerships are groups of organisations with an interest in improving the environment in the local area and are led by a catchment host organisation. The

government-policy-water-quality#appendix-4-planning-for-better-water

⁷ https://www.gov.uk/government/publications/2010-to-2015-government-policy-water-quality/2010-to-2015-

⁸ http://ec.europa.eu/environment/water/water-framework/info/timetable_en.htm

partnerships work on a wide range of issues, including the water environment but also address other concerns that are not directly related to river basin management planning. Government is also working to strengthen or establish partnerships in the areas most affected by the December 2015 floods, caused by Storm Desmond, to encourage a more integrated approach to managing risk across all catchments.

The National Resilience Review will align closely with Defra's work on integrated catchment-level management of the water cycle in the Government's 25-year Environment Plan. The Government's aspirations for the next cycle of planning (now to 2021) is for more integrated catchment planning for water, where Flood and Coastal Risk Management, nature conservation and land management are considered together.

Catchment partnerships relevant to SCC include⁹:

- The Wear Catchment Partnership hosted by Wear Rivers Trust; and
- The Tyne Catchment Partnership hosted by Tyne Rivers Trust.

A.4 Planning legislation

A.4.1 Housing and Planning Act, 2016

The Act provides the statutory framework to build more homes that people can afford, expand home ownership and improve housing management. The Act places a duty on local authorities to promote the development of starter homes, custom and self-build homes. The Act simplifies and speeds up the neighbourhood planning process to support communities that seek to meet local housing and other development needs through neighbourhood planning. In addition, the Act seeks to ensure that every area has a Local Plan and gives the Secretary of State further powers to intervene if Local Plans are not effectively delivered.

The Secretary of State must also carry out a review of planning legislation, government planning policy and local planning policies, concerning sustainable drainage in relation to the development of land in England.

A.4.2 Localism Act, 2011

The Localism Act was given Royal Assent in November 2011 with the purpose of shifting power from Central Government back to local councils, communities and individuals. The Government abolished Regional Spatial Strategies, providing the opportunity for councils to re-examine the local evidence base and establish their own local development requirements for employment, housing and other land uses through the plan making process.

Additionally, this act places a duty to cooperate on local authorities, including statutory bodies and other groups, in relation to the planning of sustainable development. This duty to cooperate requires local authorities to:

"...engage constructively, actively and on an ongoing basis in any process by means of which development plan documents are prepared so far as relating to a strategic matter." (Provision 110).

This act, together with the Neighbourhood Planning (General) Regulations 2012, also provides new rights to allow Parish or Town Councils to deliver additional development through neighbourhood planning (Neighbourhood Plans). This means local people can help decide where new homes and businesses should go and what they should look like. Local planning authorities can provide technical advice and support as neighbourhoods draw up their proposals. Neighbourhood Plans have a number of

⁹ https://catchmentbasedapproach.org/get-involved/?postcode=



conditions and requirements as set out in the NPPF. Also refer to Paragraph 061-064 of the FRCC-PPG for information on neighbourhood planning and flood risk.

A.5 Planning policy

A.5.1 National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) was published in March 2012 and received a significant revision in July 2018. The latest update took place in June 2019. It forms the national policy framework in England and is based on core principles of sustainability. It must be taken into account in the preparation of local plans and is a material consideration in planning decisions. The NPPF is accompanied by Planning Practice Guidance (PPG) which is updated as the need arises.

The PPG will, where necessary, be updated in due course to reflect the changes in the latest version of the NPPF.

The key changes in the 2019 NPPF compared to the 2012 NPPF include:

- Strategic policies should also now consider the `cumulative impacts in, or affecting, local areas susceptible to flooding' (para 156), rather than just to or from individual development sites (see Section 6.5 of the main report);
- Future risk from climate change. The 'sequential approach should be used in areas known to be at risk now or in the future from any form of flooding' (para 158) (see Sections 6.6 of the main report and Appendix B);
- Natural Flood Management. 'Using opportunities provided by new development to reduce the causes and impacts of flooding (where appropriate through the use of natural flood management techniques)' (para 157c) (see Section 5.7.4 of the main report and Appendix B);
- Sustainable Drainage Systems (SuDS). 'Major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate' (para 165) (see Section 6.7 of the main report); and
- Emergency planning. Emergency plans are required as part of an FRA that includes the inclusion of safe access and egress routes (para 163e) (see Section 7 of the main report).

As explained, the FRCC-PPG sits alongside the NPPF and sets out detailed guidance on how this policy should be implemented.

A.5.2 Flood Risk and Coastal Change Planning Practice Guidance (FRCC-PPG)

At the time of writing, the current FRCC-PPG was published on 6 March 2014 and is available online via:

https://www.gov.uk/guidance/flood-risk-and-coastal-change

Following the 2018 revision and 2019 updates of the NPPF, Government will, where necessary be updating the FRCC-PPG to reflect the changes discussed above in Section A.5.1. It is advised that any hyperlinks within the FRCC-PPG that direct users to the previous 2012 NPPF should be disregarded.

Whilst the NPPF concentrates on high level national policy, the FRCC-PPG is more detailed. The practice guidance advises on how planning can take account of the risks associated with flooding and coastal change in plan making and the development management process. This is in respect of local plans, SFRAs, the sequential and exception tests, permitted development, site-specific flood risk, Neighbourhood Planning, flood resilience and resistance techniques and the vulnerability of development to make development safe from flooding.

A.5.3 Local Plan

A Local Plan¹⁰ is a statutory document prepared in consultation with the local community. It is designed to promote and deliver sustainable development. Local Plans have to set out a clear vision, be kept up to date and to set out a framework for future development of the local area, addressing needs and opportunities in relation to housing, the economy, community facilities and infrastructure as well as safeguarding the environment and adapting to climate change and securing good design.

Local Plans set the context for guiding decisions and development proposals and along with the NPPF, set out a strategic framework for the long-term use of land and buildings, thus providing a framework for local decision making and the reconciliation of competing development and conservation interests.

The aim of a Local Plan is to ensure that land use changes proceed coherently, efficiently and with maximum community benefit. Local Plans should indicate clearly how local residents, landowners and other interested parties might be affected by land use change. They are subject to regular periods of intensive public consultation, public involvement, negotiation and approval. The Local Plan should be the starting point when considering planning applications.

The NPPF requires that the evidence base for the Local Plan must clearly set out what is intended over the lifetime of the plan, where and when this will occur and how it will be delivered. The NPPF states that Local Plans should be supported by a SFRA and should take account of advice provided by the EA and other flood risk management bodies. This SFRA should be used to ensure that when allocating land or determining planning applications, development is located in areas at lowest risk of flooding. Policies to manage, mitigate and design appropriately for flood risk should be written into the Local Plan, informed by both this SFRA and the Sustainability Appraisal.

Government guidance on Local Plans can be found via:

https://www.gov.uk/guidance/local-plans--2

Sunderland Local Plan

Sunderland City Council is in the process of preparing a new Local Plan to replace its Unitary Development Plan (1998) and Unitary Development Plan Alteration No.2 (2007). The new Local Plan comprises of three documents, as follows:

Part One – Core Strategy and Development Plan (CSDP):

The CSDP sets out an overarching strategy, strategic policies and strategic allocations and designations for the future change and growth of Sunderland. The Plan also includes local policies for development management purposes. The Plan covers the period from 2015-2033 and covers all land within Sunderland's administrative boundary. This part of the Plan was adopted by the Council in January 2020.

Part Two – Allocations and Designations Plan (A&D Plan):

Will set out local policies including site-specific policy designations and allocations for the development, protection and conservation of land in the city in order to deliver the overall strategy set out within the Core Strategy and Development Plan. The A&D Plan will cover all land within Sunderland's administrative boundaries. Whilst the Plan is still being developed, it is anticipated that it will include the following key components:

- Housing allocations to deliver the remainder of the housing requirement set out within the CSDP, building upon the strategic site allocations already set out within Core Strategy;
- Environmental designations including the Wildlife Corridor Network, Local Wildlife Sites and greenspaces;

¹⁰ Town and Country Planning, England. The Town and Country Planning (Local Planning) (England) Regulations 2012

- Historic environment designations, including Conservation Areas and Scheduled Monuments;
- Retail allocations, where required; and
- Any other specific allocations and designations considered necessary.

Part Three – International Advanced Manufacturing Park (IAMP) Area Action Plan (AAP):

Sets out site-specific policies for the comprehensive development of a new employment park on land to the north of the existing Nissan manufacturing plant. As this park straddles the border between Sunderland and South Tyneside, the Plan was jointly prepared by both Councils. The IAMP AAP was adopted in November 2017.

Following the adoption of the first two parts of the Sunderland Local Plan, the Council is now progressing at pace, the preparation of the final part of the Sunderland Local Plan, which is the Allocations and Designations Plan. Once adopted, this will replace the remaining saved policies from the Unitary Development Plan and Unitary Development Plan No.2.

A.5.4 Sustainability Appraisals

The Sustainability Appraisal (SA) is a key component of the Local Plan evidence base, ensuring that sustainability issues are addressed during the preparation of local plans. The SA is a technical document which has to meet the requirements of the Strategic Environmental Assessment Directive 2001/42/EC which assesses and reports on a plan's potential impact on the environment, economy and society. The SA carries out an assessment of the draft policies at various stages throughout the preparation of the Local Plan and does this by testing the potential impacts and considers alternatives against the plan's objectives and policies. This ensures the potential impact from the plan, on the aim of achieving sustainable development, are considered and that adequate mitigation and monitoring mechanisms are implemented.

SCC Sustainability Appraisal

A full SA report was produced to support preparation of the revised Core Strategy and Development Plan in 2017¹¹. The Council published its Publication Draft Core Strategy and Development, along with a revised SA report in June 2018 for a last round of consultation prior to submission.

Following Council approval in November 2018, the Publication Draft Core Strategy and Development Plan was submitted for examination in December 2018. Following the examination hearings in summer 2019, a number of main modifications were suggested; in light of these main modifications, a SA Addendum was produced. The Council undertook consultation on the main modifications and accompanying SA Addendum in late 2019. The CSDP was adopted by the Council on 30 January 2020.

A full SA report has been produced for the A&D Plan which will be published as part of the public consultation on the Plan.

¹¹ https://www.sunderland.gov.uk/media/19028/Sustainability-Appraisal-2017-/pdf/2_Sustainability_Appraisal_(2017).pdf?m=636371793099070000

A.6 Flood risk management policy

A.6.1 Sunderland Strategic Flood Risk Assessment Level 1, 2018¹²

In 2018, a Level 1 SFRA was commissioned by SCC to update the existing 2010 SFRA. This SFRA was prepared in accordance within the FRCC-PPG and the now superseded 2012 version of the NPPF. The aim of this study was to direct new development towards areas with a low probability of flooding in the administrative region of SCC. The study analysed current and future flooding issues in order to support the LPA assessment of future development sites, including providing data to inform the application of the Sequential Test.

A number of conclusions were drawn from the report which are still relevant within this update, including:

- The need to regularly review and update the SFRA due to climate change projections and changes in national guidance; and
- The broad-scale and settlement-level assessments show that whilst flood risk exists, it does not pose a widespread and significant issue for the allocation of development sites.

Level 2, 201813

In 2018, following the Level 1 SFRA, one site was chosen as a potential Development Site where further, more detailed, site specific assessment was required in the form of a Level 2 SFRA. The report confirmed the potential suitability of the Port of Sunderland site with respect to flood risk. The report incorporated a screening Flood Risk Assessment, outline drainage strategy, and a Level 2 site screening assessment.

A.6.2 Water Cycle Studies (WCS)

The purpose of a WCS is to investigate whether the local water environment has the capacity to support planned levels of growth and provide a comprehensive and robust evidence to support Local Plan production.

To achieve this, the WCS investigates the capability of the water and sewerage suppliers to provide the services to enable housing and economic growth and identify key risks to the timing of housing delivery and impacts on customers and the local environment. A WCS is certainly useful in the Local Plan Examination, where there is large growth and urban expansion planned within a local authority area.

There is currently no water cycle study for the SCC area.

A.6.3 National and Local Flood Risk Management Strategies

As presented in Figure 4-1 in Section 4.1 of the main report, the FWMA establishes how flood risk will be managed within the framework of National Strategies for England and Local Strategies for each LLFA area.

The National Strategy for England has been developed by the EA with the support and guidance of Defra and was released July 2020¹⁴. The National Strategy sets out principles for how flood risk should be managed and provides strategic information

¹² https://www.sunderland.gov.uk/media/20422/Sunderland-City-Council-Level-1-Strategic-Flood-Risk-Assessment-2018/pdf/57_SCC_Level_1_SFRA.pdf?m=636646129347430000

¹³ https://www.sunderland.gov.uk/media/20891/SD-50-Sunderland-Flood-Risk-Policy-Level-2-Strategic-Flood-Risk-Assessment-Site-Screening-2018-

[/]pdf/SD.50_Sunderland_Flood_Risk_Policy_Level_2_Strategic_Flood_Risk_Assessment___Site_Screening_(2018).pdf ?m=636802968502500000

¹⁴ https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-management-strategy-forengland--2

about different types of flood risk and which organisations are responsible for their effective management. The FWMA requires risk management authorities (local authorities, EA, sewerage companies and highways authorities) to work together and act consistently with the National Strategy in carrying out their flood and coastal erosion risk management functions effectively, efficiently and in collaboration with communities, businesses and infrastructure operators to deliver more effective flood risk management.

LLFAs have responsibility for developing a LFRMS for their area covering local sources of flooding (see Table A.1-1). **The local strategy produced must be consistent with the National Strategy**. The local strategy should set out the framework for local flood risk management functions and activities and should raise awareness of local organisations with responsibilities for flood risk management in the area. The strategy should also facilitate partnership arrangements to ensure co-ordination between local organisations and an assessment of flood risk and plans and actions for managing risk, as set out under Section 9 of the FWMA.

The following link provides links to guidance for RMAs and local authorities on various subjects of flood risk management, including tools to support LLFAs in developing their LFRMS.

https://www.gov.uk/guidance/flood-risk-management-information-for-flood-risk-management-authorities-asset-owners-and-local-authorities

SCC Local Flood Risk Management Strategy¹⁵

A LFRMS was produced in April 2016. The Strategy sets out how SCC will manage risk from all types of flooding such as surface water runoff, groundwater and ordinary watercourses for which the City Council has a responsibility as LLFA and other types of flooding where local agents can play a supporting role to lead agencies.

The LFRMS has eight key objectives set for each of the social, economic and environmental indicators. Social objectives:

- Reduce the risk to people by understanding the current and future flood risk so that measures can be targeted at those most at risk;
- Minimise the impact of local flooding on communities;
- Manage the impact of new development on flood risk to communities and the environment;
- Reduce the flood risk to critical services and infrastructure Economic objectives;
- Reduce the risk to the economy by understanding current and future flood risk so that measures can be targeted in the most cost beneficial way; and
- Ensure investment in FCERM does not hinder but promotes economic growth in a sustainable way.

Environmental objectives:

- Promote schemes that have multiple environmental benefits;
- Reduce the impact of flood risk on the environment and cultural heritage Planning objectives;
- Allowing space for surface water flood flows (and SuDS) during development planning; and

¹⁵ https://www.sunderland.gov.uk/media/17760/Local-Flood-Risk-Management-Strategy/pdf/Sunderland_LFRMS__ _Complete_-_140316.pdf?m=635935697260170000

• Increase sustainable development and effective planning of flood risk infrastructure along with consideration of flood risk management in core planning principles to meet existing challenges and future needs.

The local strategy should be reviewed and updated as soon as possible as it must remain consistent with the national strategy which was published in July 2020. This is a requirement under the FWMA 2010.

Review of the LFRMS

It is recommended that SCC's LFRMS is updated as soon as possible to take account of the:

- Updated National Flood and Coastal Erosion Risk Management Strategy¹⁶, published July 2020, noting the increasing emphasis on planning for adapting to climate change that runs through the new national strategy;
- Revised government policy statement on Flood and Coastal Erosion Risk Management¹⁷ (July 2020);
- Revised flood risk datasets, including those collated for this SFRA that have emerged since 2016;
- Lessons learnt from severe surface water flooding events since 2016; and
- Revised approaches to flood risk management, partnership working and funding that have emerged since 2016.

The review should ensure that:

- The views of all relevant stakeholders are taken into account;
- The flood risk evidence base is updated for all sources of flooding and presented in such a way that it can be used to prioritise actions across the SCC area and to help justify funding for further appraisal work where this is deemed necessary;
- The objectives and actions from the previous 2016 LFRMS are reviewed against the progress that has been made in local flood risk management work in the SCC area;
- A revised action plan is specific, achievable and fundable, with measurable success factors and that this can be aligned with the wider work the Council does i.e. in terms of managing open space, highways, etc.;
- A Strategic Environmental Assessment and Habitats Regulations Assessment are undertaken, if these are scoped in and appropriate; and
- The revised LFRMS is subject to public consultation.

A.6.4 River Don Partnership, Don Integrated Catchment Project, June 2016

River Don Partnership launched January 2016 as a sub-partnership of the Tyne Catchment Partnership, to represent partner interests and steer delivery of the Don Integrated Catchment Project.

The partnership was born out of the Tyne Catchment Partnership which recognised the need for improvements under the Water Framework Directive, the prioritisation of the catchment for internal drainage studies by NIDP and the plans for large scale developments in the upper Don catchment. In January 2016, funding provided by Northumbrian Water (NW) to Durham Wildlife Trust (DWT) to initiate a project on the

¹⁶ https://www.gov.uk/government/publications/national-flood-and-coastal-erosion-risk-management-strategy-forengland--2

¹⁷ https://www.gov.uk/government/news/multi-billion-pound-investment-as-government-unveils-new-long-termplan-to-tackle-flooding

Don to improve river water quality, allowed the formation of the River Don Partnership, led by DWT working closely with the Local Nature Partnership (LNP).

In April 2016, the EA set up a meeting to discuss potential additions to the flood risk Medium Term Plan (MTP), at which partners discussed the various interests and opportunities and the potential for taking a more strategic approach to drainage for the Don which could tackle integrated flood risk whilst also incorporating multiple environmental benefits.

The objectives of the Partnership are to deliver a catchment approach to resolving issues and planning improvements; to maximise benefits; to mitigate development pressures; to combine and share knowledge, resources and skillsets; and to integrate and align multiple funding opportunities.

In terms of flood risk, the River Don Catchment Vision includes:

- Gathering the information required to assess the contribution to flood risk of river, surface water and sewer flows;
- Allowance for the attenuation of water in the wider landscape through natural flood management and the creation of floodplain habitat;
- Removal or modification of culverts where these act as a constraint to flows, thereby reducing the flood risk to properties and infrastructure;
- Identification of opportunities to implement surface water management through well designed SuDS that provide multifunctional benefits within new developments; and
- Improving the resilience of the catchment to the predicted effects of climate change, increasing the capacity of the river to manage the impacts of high flows.

A.6.5 River Tyne to Flamborough Head Shoreline Management Plan 2

The River Tyne to Flamborough Head Shoreline Management Plan (SMP) was adopted by SCC in 2007 and provides a broad-scale assessment of the management issues along this stretch of coastline. Management areas MA06, MA07 and MA08 fall within the SCC area. The plan includes the major refurbishment works and reconstruction of the linear defences over the southern extent of the Council's area, as well as making monitoring recommendations, which have now been completed.

A.6.6 International Advanced Manufacturing Park Flood Risk and Water Management Report, 2016

This report formed part of the evidence base for the Area Action Plan (AAP) for the International Advanced Manufacturing Park (IAMP), which is located on land to the north of the existing Nissan car manufacturing plant in Washington. Because of the proximity to the council boundary, the development is a partnership between Sunderland and South Tyneside Councils. The IAMP is a 150 hectare development and is designated as a Nationally Significant Infrastructure Project.

The report identifies the main flood risk to the development as being from the River Don, with key areas at North Moor Farm and Hylton Bridge which are likely to be flooded in the 5% AEP event. There is deemed to be some risk from surface water flooding due to the impermeable nature of superficial deposits, as well as localised risk from overflowing drains and land-drain culvert blockages.

Key water management issues to be addressed during the development of the IAMP include:

- Managing flood risk from large paved areas;
- Controlling runoff from new built development;
- The ability to be able to Cross the River Don clear of predicted flood levels; and

• Managing water quality of development runoff.

The scheme also offers potential to improve the river channel and to create wetland/water habitats. A site-specific FRA was undertaken by the scheme promoter.

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A.6.7 Surface Water Management Plans (SWMP)

In June 2007, widespread flooding was experienced in the UK. The Government review of the 2007 flooding, chaired by Sir Michael Pitt recommended that...

"...Local Surface Water Management Plans (SWMPs) ...coordinated by local authorities, should provide the basis for managing all local flood risk."

The Government's SWMP Technical Guidance document¹⁸, 2011, defines a SWMP as:

- A framework through which key local partners with responsibility for surface water and drainage in their area, work together to understand the causes of surface water flooding and agree the most cost-effective way of managing surface water flood risk.
- A tool to facilitate sustainable surface water management decisions that are evidence based, risk based, future proofed and inclusive of stakeholder views and preferences.
- A plan for the management of urban water quality through the removal of surface water from combined systems and the promotion of SuDS.

As a demonstration of its commitment to SWMPs as a structured way forward in managing local flood risk, Defra announced an initiative to provide funding for the highest flood risk authorities to produce SWMPs.

Defra's framework for carrying out a SWMP is illustrated by the SWMP wheel diagram, as shown in Figure A.6-1. The first three phases involve undertaking the SWMP study, whilst the fourth phase involves producing and implementing an action plan which is devised based on the evidence gained from the first three phases.

At the time of writing, there is no surface water management plan in place for SCC, however, based on the risk shown around areas such as Hetton-le-Hole and Houghton-le-Spring, localised SWMPs may be beneficial in such locations. The drainage strategy for phase 1 of the IAMP was submitted by the scheme promoter.

¹⁸ Surface Water Management Plan Technical Guidance - https://www.gov.uk/government/publications/surfacewater-management-plan-technical-guidance

JBA consulting



Figure A.6-1: Defra wheel (taken from SWMP Technical Guidance)

A.6.8 Critical Drainage Areas (CDAs)

Certain locations known to be susceptible to localised flooding can be defined as Critical Drainage Areas (CDAs) and are based on areas of surface water flood risk and where the sewer network may be at capacity. Areas with Critical Drainage Problems (ACDPs) may be designated where the EA is aware that development within a certain catchment/drainage area could have detrimental impacts on fluvial/tidal flood risk downstream and/or where the EA has identified existing fluvial/tidal flood risk issues that could be exacerbated by upstream activities. The 2010 Level 1 SFRA identified CDAs at Barnes Burn, Hendon Burn, Houghton/Hetton, Herrington, Seaburn/Roker, and Washington Central (see Section 5.3.3 of the main report). A review of these CDAs was not carried out for the 2018 SFRA, nor for this 2020 SFRA update. Considering the CDAs are over ten years old and therefore based on now obsolete data, it is advised that SCC carry out a review of the CDAs in the near future.

A.6.9 Green Infrastructure assessments

Open space, or Green Infrastructure (GI), should be designed and managed as a multifunctional resource capable of delivering a wide range of environmental and quality of life benefits for local communities and should be provided as an integral part of all new development, alongside other infrastructure such as utilities and transport networks.

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Open space can provide many social, economic and environmental benefits close to where people live and work including:

- Places for outdoor relaxation and play;
- Space and habitat for wildlife with access to nature for people;
- Environmental education;
- Local food production in allotments, gardens and through agriculture;
- Improved health and well-being lowering stress levels and providing opportunities for exercise; and
- Climate change adaptation for example flood alleviation and cooling urban heat islands.

Paragraph 118b of the NPPF (2019) explains that open space can perform many functions, including flood risk mitigation and that Local Plans should account for increased flood risk, resulting from climate change, through the planning of Green Infrastructure. GI can have an important role to play in reducing the likelihood of flooding by providing space for flood storage, reducing runoff and increasing infiltration, whilst also providing other benefits as stated above.

Alongside GI should be the implementation of SuDS, specifically within potential development sites, where possible. The suitability of GI and SuDS can be informed by this SFRA through utilisation of open space for water in the areas of greatest flood risk, which would be key to helping deliver sustainable development. Examples include:

- Restoration of natural character of floodplains;
- Reduction of downstream flood risk;
- Preserving of areas of existing natural floodplain; and
- Introduction of new areas and enhancing existing areas of greenspace whilst incorporating sustainable drainage within new development.

The Town and Country Planning Association together with the Wildlife Trusts produced a guidance document for Green Infrastructure¹⁹. The guidance states that local plans should identify funding sources for GI and provision should be made for GI to be adequately funded as part of a development's core infrastructure. For new developments, GI assets can be secured from a landowner's 'land value uplift' and as part of development agreements. LPAs may include capital for the purchase, design, planning and maintenance of GI within the Community Infrastructure Levy (CIL) programme.

Sunderland Green Infrastructure Strategy, May 2018²⁰

This study was commissioned by SCC to inform and support Sunderland's Core Strategy and Development Plan (CSDP) 2015 – 2033. It builds upon a wealth of work already conducted by the Council, in assessing the quality and quantity of greenspace provision

/pdf/SD.46_Sunderland_Green_Infrastructure_Strategy_(2018).pdf?m=636802959791130000

 ¹⁹ Planning for a Healthy Environment - Good Practice Guidance for Green Infrastructure and Biodiversity, Published by the Town and Country Planning Association and The Wildlife Trusts, July 2012
²⁰ https://www.sunderland.gov.uk/media/20889/SD-46-Sunderland-Green-Infrastructure-Strategy-2018-

in local neighbourhoods and identifying a set of district and inter-district Green Infrastructure Corridors.

This study also builds upon the Council's Greenspace Audit (first published July 2013, updated 2018 and 2020) and utilises a range of wider socio-economic and environmental indicators, relevant to the NPPF's objectives, in order to map where there is greatest area-based need for the public benefits that GI brings.

The Green Infrastructure Delivery and Action Plan (published March 2019) translates the Green Infrastructure Strategy's Vision into a series of projects for delivery and action over the next 15 years, from 2018 to 2033.

A.6.10 Flood risk partnerships and partnership plans

SCC has been involved in the development of several partnerships designed to provide collaboration between public agencies, businesses and the community. Partnerships and plans that affect the district include:

- The Flood and Coastal Erosion Risk Management Group set up to plan and deliver the requirements of the FWMA with representatives from departments including Emergency Planning, Finance, Planning Strategy, Development Management, Highways and Transportation;
- Tyne and Wear Strategic Flood Risk Management Group this group is made up from the five Tyne and Wear Councils. The Group meets quarterly to discuss related planning and flood risk issues;
- Northumbrian Water SCC has quarterly operational liaison meetings with NW to discuss local flooding and planning issues;
- North East Coastal Group (NECG) this group of coastal representatives meet with the EA to discuss local issues and identify how the RFCC can assist with the issues raised;
- Key businesses SCC has ongoing relations with major landowners, employers and organisations including Sunderland Port;
- Northumbria Local Resilience Forum (NLRF);
- Northumbria Regional Flood and Coastal Committee; and
- Northumbria Integrated Drainage Partnership (NIDP) LLFA, EA and NW meet quarterly to discuss issues.

See Section 7 of the main report on Emergency Planning for more information.

The responsibilities for the Risk Management Authorities under the Flood & Water Management Act and Flood Risk Regulations, as summarised by Government²¹, are summarised below.

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A.7.1 EA as a RMA

- Has a strategic overview role for all forms of flooding;
- Provides and operates flood warning systems;
- Carries out work to manage flood risk from the sea and main rivers;
- Carries out works in estuaries to secure adequate outfalls for main rivers;
- Carries out surveys to inform FCERM works and has the right to enter private land to carry out such works;
- Issues permits and byelaws with the Environmental Permitting (England and Wales) Regulations 2016 and remaining Environment Agency North West Region byelaw prohibitions for works on or near main rivers, works affecting watercourses, flood and sea defences and other structures protected by its byelaws;
- Designates structures and features of the environment that affect flood or coastal erosion risk;
- Has the power to request information from any partner in connection with its risk management functions;
- Must exercise its flood or coastal erosion risk management functions in a manner consistent with the National Strategy and Local Strategies;
- Must be consulted on Local Strategies, if affected by the strategy, by the LLFA; and
- Must help advise on sustainable development.

A.7.2 LPA as a RMA

- Has a duty to act in a manner that is consistent with the National Strategy and have regard to Local Strategies;
- Must be consulted on Local Strategies, if affected by the strategy, by the LLFA;
- Has a duty to be subject to scrutiny from the LLFA; and
- Has a duty to cooperate and share information with other RMAs.

A.7.3 LLFA as a RMA

- Must develop, maintain, apply and monitor a strategy for local flood risk management. This must be consulted on with all RMAs, the public and all other partners with an interest in local flood risk and must comply with the National Strategy;
- Should prepare and maintain a preliminary flood risk assessment, flood hazard maps, flood risk maps and flood risk management plans;
- Is required to coordinate and share information on local flood risk management between relevant authorities and partners;
- Is empowered to request information from others when it is needed in relation to its flood risk management functions;

²¹ https://www.gov.uk/government/collections/flood-and-coastal-erosion-risk-management-authorities

- Must investigate significant flooding incidents in its area where it considers it necessary or appropriate;
- Has a duty to establish and maintain a record of structures within its area that it considers having a significant impact on local flood risk;
- Is empowered to designate structures and features that affect flooding;
- Has powers to undertake works to manage flood risk from surface runoff, groundwater and ordinary watercourses;
- Must exercise its flood and coastal erosion risk management functions in a manner consistent with the National Strategy and the Local Strategy;
- Can carry out work that may cause flooding or coastal erosion in the interests of nature conservation, preservation of cultural heritage or people's enjoyment of the environment or cultural heritage;
- Can acquire land in or outside of their district for use in flood risk management if necessary;
- Is permitted to agree the transfer of responsibilities for risk management functions (except the production of a local strategy) to other RMAs;
- Can take the lead on preparing SWMPs;
- Must aim to contribute to sustainable development; and
- Should consider flooding issues that require collaboration with neighbouring LLFAs and other RMAs.

A.7.4 Northumbrian Water as a RMA

- Has a duty to act in a manner that is consistent with the National Strategy and have regard to Local Strategies;
- Must be consulted on Local Strategies, if affected by the strategy, by the relevant LLFA;
- Has a duty to be subject to scrutiny from LLFAs;
- Has a duty to cooperate and share information with other RMAs; and
- Is responsible for managing the risks of flooding from water and foul or combined sewer systems providing drainage from buildings and yards.

A.7.5 Highways Authority (SCC) and Highways England as RMAs

- Have a duty to act in a manner that is consistent with the National Strategy and have regard to local strategies when:
 - Carrying out highway drainage works,
 - Filling in roadside ditches,
 - Diverting or carrying out works on part of a watercourse;
- Have responsibility for ensuring effective drainage of local roads in so far as ensuring drains and gullies are maintained;
- Must be consulted on Local Strategies, if affected by the Strategy, by the LLFA; and
- Have a duty to be subject to scrutiny from LLFAs.

A.7.6 The local community

- Must be consulted on Local Strategies by the LLFA; and
- Has a key role in ensuring local strategies are capable of being successfully delivered within the community. They should actively participate in this process and be engaged by the LLFA.

A.7.7 Riparian owners

A riparian owner is someone who owns land or property alongside a river or other watercourses. A watercourse is any natural or artificial channel through which water flows including through a culvert, ditch, cut, dyke, sluice or private sewer.

Riparian owners have statutory responsibilities, including:

- Maintaining watercourses;
- Allowing the flow of water to pass without obstruction; and
- Controlling invasive alien species.

Further guidance for riverside property owners can be found via:

https://www.gov.uk/guidance/owning-a-watercourse

A.7.8 Developers

Have a vital role in ensuring effective local flood risk management by avoiding development in areas at risk of flooding. Local Strategies should form a key element of local planning guidance, along with consultation on this SFRA.