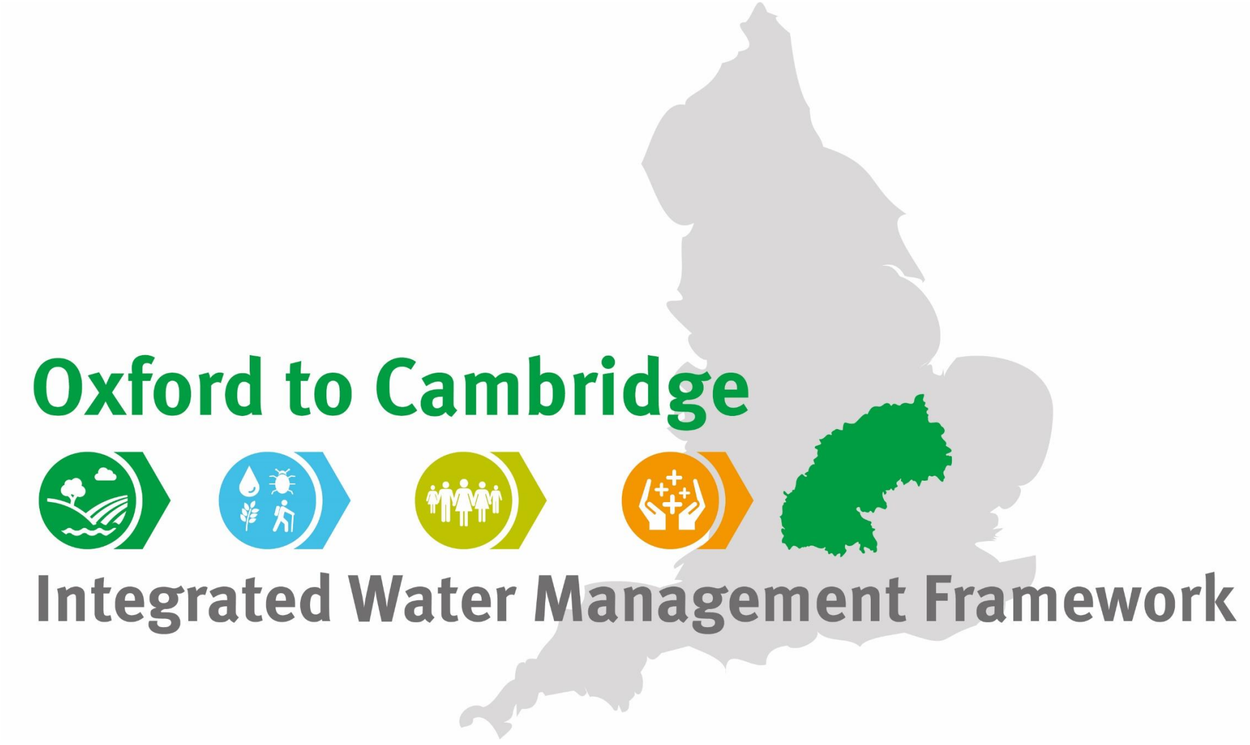
Planning and Water Toolkit

For Local Planning Authorities (LPAs)

Environment Agency

Click here to get started



Last updated August 2025

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Intro to the Toolkit

The Environment Agency (EA) commissioned Eunomia Research & Consulting Ltd. (Eunomia) and Land Use Consultants Ltd. (LUC) to create this toolkit as part of the Maximising Planning for Water project (was the Local Planning Authorities Spheres of Influence project).

The project aimed to support Local Planning Authorities in the Oxford to Cambridge area to maximise the potential of planning for the water system (flood risk, water resources, water quality and environment and wastewater).

The area between Oxford and Cambridge (OxCam) is one of the areas of serious water stress in the country. Key water challenges in the OxCam area include:

- Significant water supply pressures, with multiple water bodies failing flow targets during low flows. This is forecast to worsen due to increased pressure from development and climate change.
- Around 50,000 properties are at risk of fluvial flooding once every 100 years. More than 7,000 properties are at risk of surface water flooding once every 100 years†. This risk is particularly significant around the floodplains of the Rivers Great Ouse, Thames and Nene, and in the Fens in Cambridgeshire.
- Water quality deterioration, with only 190 out of 346 water bodies meeting their obligations under the Water Framework Directive.

The toolkit is intended to support Local Planning Authorities in creating and applying robust policies to support positive outcomes for the water system.

† From "*Oxford to Cambridge Arc, Integrated Water Management Framework: a high-level summary*"

Intro to the Toolkit

Oxford to Cambridge
Integrated Water Management Framework

The toolkit is not intended to be used as a static document to read through in its entirety. You should access the relevant parts of the toolkit at key stages when you are working on particular aspects of either a Local Plan or a planning application (the 'search' function, CTRL+F, also works if you need to find something specific). The toolkit is split into Policy Development and Development Management. These two categories are split into nine sub-stages covering:

Policy Development	Development Management
• Developing the Evidence Base	• Pre-application
• Engaging with Stakeholders	• Submission & Validation
• Drafting the Plan and Policies	• Consultation
• Examination	• Determination
• Monitoring & Review	

For each of the above stages, the toolkit contains a **checklist of items for you to consider** at that stage. Each item to consider in the checklists has a unique reference code. The code reflects the stage of the planning process and the water theme (where relevant), plus a number.

You can use the checklists in the tool as an aide memoir to ensure that you have considered relevant water information at that stage, but you can also download, complete, and publish or submit the checklist and your responses (for example to show how you have considered the water system in support of a Local Plan).

Each item to consider in the checklists is accompanied by **resources** contained in the tool. The resources are intended to assist you in how to consider each item in the checklist. The resources are a range of external links to documents/websites, findings from the Spheres of Influence project, and case studies / example policies.

By using the checklists and resources you will be able to create and apply robust policies to support positive outcomes for the water system.

This toolkit was created using the National Planning Policy Framework dated December 2024.

Downloads

All downloads contained within the toolkit can be downloaded from this page.

For ease, the checklists can be downloaded to be completed using the links below.

- Policy Development checklist
- Development Management checklist

The resources relating to these checklists (available within this toolkit) are not downloadable. If you download the checklist, you will still need to access the resources from within the online version of the toolkit.

You can find the following download in the “drafting plan and policies” section of the toolkit. For convenience, it is also available here:

- Policy case studies technical note

You can find the following downloads in the “development management” section of the toolkit. For convenience, it is also available here.

- Water pre-application checklist
- Conditions Technical note

Intro to the Toolkit

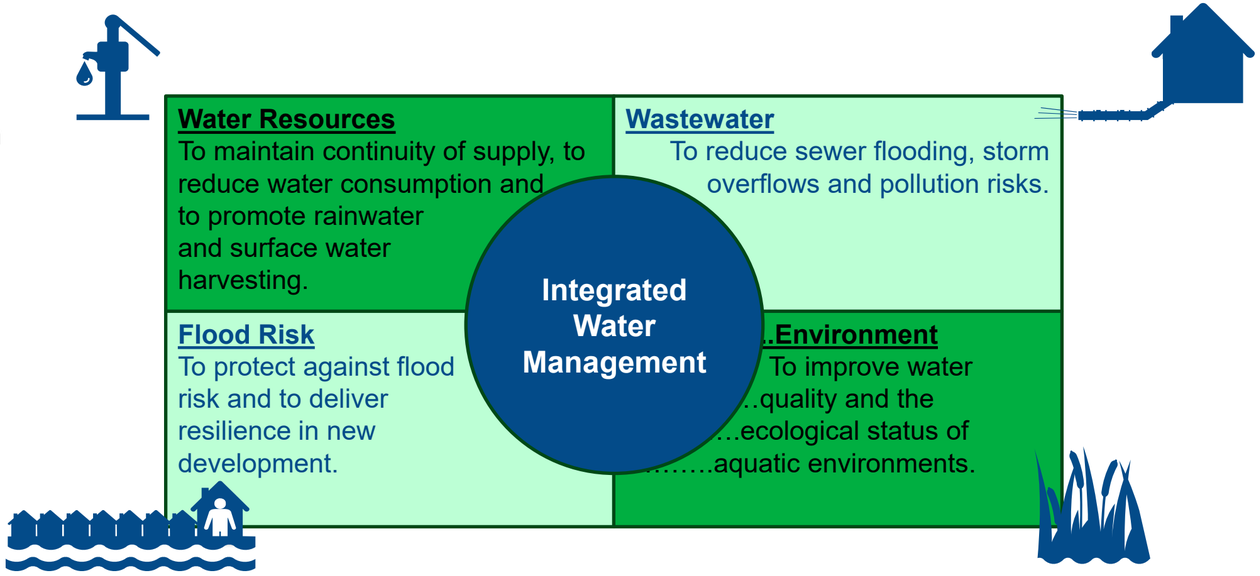
The Four Water Disciplines

The four water disciplines set out by the Oxford to Cambridge (OxCam) Integrated Water Management Framework (IWMF) are systems that have tended to be considered and assessed separately. As an example, if a flood option offers benefits in terms of water resources, this is not necessarily translated across for appraisal in water resource planning.

Integrating the systems together helps to maximise collective opportunities and allow for core system benefits to be recognised across the disciplines.

Key planning objectives for each of the four water disciplines (flood risk, resources, wastewater and quality and environment) were established based on:

- current key national and regional policy drivers for water;
- the planning frameworks in place for each of the water sub-systems; and
- the IWMF goal to holistically address water by promoting integration and generating co-benefits across the existing four water planning processes.



Ambitions relating to the four disciplines are set out in the diagram above, with more information presented across the next few pages.

Water Resources

Water resources can be defined as any source of freshwater that is useful to humans. This applies to water used for drinking or utilities in the home, but also to water used in industrial and agricultural processes, making water incredibly important to our daily lives. However, freshwater is crucial to the correct functioning of many ecosystems, so abstracting water for human use should be minimised to prevent negative impacts to nature.

Key objectives for delivering effective water resource planning include a need to:

- Ensure that there is enough water for people and the environment.
- Ensure that water supplies are safe and secure.
- Ensure that water is efficiently used.
- Reduce the scale of carbon emissions associated with the treatment of water.
- Consider water resources in the context of other challenges, such as protecting water quality.
- Promote and sustain collaboration between key stakeholders, including LPAs, utilities and other agencies.

Dripping tap

Water Quality and Environment

Water quality refers to specific characteristics of water in respect to a particular purpose the water serves. In this case, it refers to the chemical and ecological status of a waterbody, as outlined in the Water Framework Directive. The water environment refers to the water and the ecosystem it works within, which is interconnected with water quality.

Maintaining good water quality and environment is crucial in building healthy ecosystems that are more resilient to climate change, cleaner water resources and also has a positive social impact due to the wellbeing benefits that come with being “in nature”.

Key objectives for delivering for water quality include a need to:

- Facilitate the ongoing improvement in quality of surface, ground and coastal waters and wetlands.
- Encourage the avoidance of non-mains drainage private treatment options.
- Reduce the use of Combined Sewer Overflows.
- Protect and enhance water environments, and to encourage the provision of multi-functional benefits.

Roach in water

Intro to the Toolkit

Oxford to Cambridge
Integrated Water Management Framework

Wastewater

Wastewater is any water that is at the end of its ‘useful’ life in a domestic, agricultural or industrial setting, and also applies to surface water runoff from roads or other artificial surfaces. Usually this means there is some form of contamination that has taken place, which could cause harm in a natural environment if not treated properly.

There are regular reports of wastewater mismanagement on a large scale in the UK. One of the main reasons for this is a lack of capacity at treatment works, and therefore it is important to minimise wastewater as much as possible to prevent adding to an already overstretched system.

Key objectives for effectively planning wastewater include a need to:

- Ensure that existing capacities are properly understood.
- Identify areas of under-provision and to develop innovative solutions in response.

Reflection of a man at wastewater treatment works

Flood Risk

Flood risk is the likelihood of a flood event happening and its associated environmental, social and economic consequences. There are several types of flooding:

1. **Coastal flooding**: Flooding which is normally due to extreme weather events or high tides.
2. **Fluvial flooding**: Also known as river flooding, which usually occurs due to periods of intensive rainfall.
3. **Groundwater flooding**: Flooding that occurs when the groundwater rises and reaches ground level.
4. **Surface water flooding**: Also known as pluvial flooding, which occurs independent of an overflowing water body (such as in river flooding), when heavy rainfall exceeds natural and/or man-made drainage capacity or the capacity of the ground to absorb it.

Flooded landscape

It is important for LPAs to consider all types of flood risk when developing local plans and making planning decisions to minimise the risks of associated health impacts, property damage, environmental damage and economic losses. Furthermore, with climate change leading to more frequent flooding events, ensuring that development is not exposed to or does not contribute to increased flood risk is critical for climate change adaptation.

Therefore, key objectives for delivering effective protection against flood risk include a need to:

- Ensure that people, property and places are better protected and safeguarded from flood risk.
- Ensure that proper consideration is given to the impacts arising from climate change, such as increased temperatures and extreme weather events.

How to use this toolkit

To navigate this toolkit, click on the **icons and links (**underlined**)** to go to the desired page or external resource.

You can press  in the bottom right-hand corner to return to the **home page**.

You can navigate between pages by using the < **back** and > **next** buttons in the bottom right-hand corner of the page.

Some pages have additional icons (such as a navigation bar, or icons relating to different water disciplines). These icons enable you to navigate to other sections of the toolkit faster.

This toolkit works best opened using software designed specifically for reading PDF files (e.g. Adobe Acrobat) as opposed to a web browser. To achieve this, download the file, right click and choose “open with…”, selecting your preferred software.

If you have any questions or need help, please contact ox.cam@environment-agency.gov.uk. You can fill in this short survey to share your thoughts on how the toolkit works and what it includes.

Intro to Planning and Water

Oxford to Cambridge
Integrated Water Management Framework

Contents

Note: Click this icon to return to planning & water contents page

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Planning and Water

Policy & Legislative Context

LPAs have statutory responsibilities to consider water in their planning policies and in reviewing applications.

Key national drivers relevant to planning and the water environment include:

- The National Planning Policy Framework (NPPF) and planning practice guidance (PPG)
- Water Environment (Water Framework Directive) (England & Wales) Regulations 2017
- Flood & Water Management Act 2010 (Schedule 3)
- Environment Act 2021 and biodiversity net gain (BNG)

The National Planning Policy Framework

Originally published 2012, the National Planning Policy Framework (NPPF) was most recently updated in December 2024. The NPPF sets out planning policy for England and provides guidance on how it is expected to be applied, both in terms of local plan development and planning application decision-making. The NPPF must be considered by LPAs during local plan development and is also a 'material consideration' in planning decisions. Therefore, several of the checklist items within this toolkit are based on NPPF prompts.

The NPPF states how Local Plans should take a proactive approach to mitigating and adapting to climate change, considering the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures. Given the risk to human life and property damage, the NPPF provides a larger focus on flooding.

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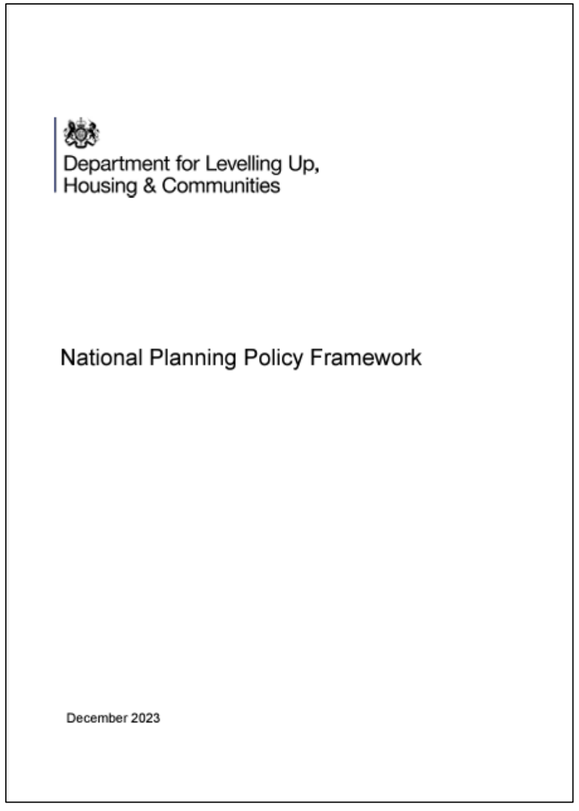
Department for Levelling Up,
Housing & Communities

National Planning Policy Framework

December 2023

Intro to Planning and Water

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National Planning Policy Framework

Continuation

The NPPF also states that planning policies and decisions should contribute to and enhance the natural and local environment. The NPPF outlines a need for LPAs to prevent new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by unacceptable levels of flood risk.

The NPPF also outlines the importance of planning for necessary infrastructure, such as that required for water supply, wastewater, flood risk and coastal change management.

In terms of responding to flood risk, the NPPF states how inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future).

The framework also emphasises the importance of incorporating sustainable drainage systems, and green infrastructure, into development proposals.

Paragraph 201 of the National Planning Policy Framework says:

"*The focus of planning policies and decisions should be on whether proposed development is an acceptable use of land, rather than the control of processes or emissions (where these are subject to separate pollution control regimes). Planning decisions should assume that these regimes will operate effectively.*"

The relationship between planning and pollution control regimes is explained in the cases Hopkins Developments Ltd v First Secretary of State (2007), Gateshead MBC v SSE (1996), and R v Bolton MBC ex p. Kirkman (1998).

One of the case mentioned above puts it like this:
"The relationship between the planning and pollution control regimes has been the subject of consideration by the Court of Appeal in Gateshead MBC v SSE (1996) 71 P&CR 350 and R v Bolton MBC ex p. Kirkman [1998] JPL 787 . They establish the proposition that the impact of air emissions from a proposed development is capable of being a material planning consideration but in considering that issue the planning authority is entitled to take into account the pollution control regime. Thus in appropriate cases planning authorities can leave pollution control to pollution control authorities, but they are not obliged as a matter of law to do so."

Flooding in Cambridgeshire

Intro to Planning and Water

Continuation

The Environment Agency (EA) has a duty to assist LPAs in undertaking their duty of sufficient inquiry.

It should include details of networks and Water Sewerage Treatment Works that the Environment Agency knows are having issues operating within their permitted limits.

It should also include details of where the Environment Agency has concerns about the environmental capacity of watercourses to receive additional treated water flows from Water Sewerage Treatment Works.

If there's a reasonable prospect of finding a solution to manage permitting compliance issues for a wastewater treatment works, pollution risk or environmental harm controlled by a permit is unlikely to be a strong material consideration.

However, if it's unlikely that a solution will be found through regulations, it is reasonable for planning decisions to consider this. This depends on several factors, including other legal requirements.

Planning Practice Guidance

Supporting the NPPF is a suite of national Planning Practice Guidance (PPG). The PPG covers a range of topics, including:

- Climate change
- Flood risk and coastal change
- Water supply, wastewater and water quality
- Natural environment

River in unknown location

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Water Framework Directive

LPAs have a statutory duty under the Water Environment (Water Framework Directive (WFD)) (England & Wales) Regulations 2017 to fulfil objectives set out in River Basin Management Plans (RBMPs).

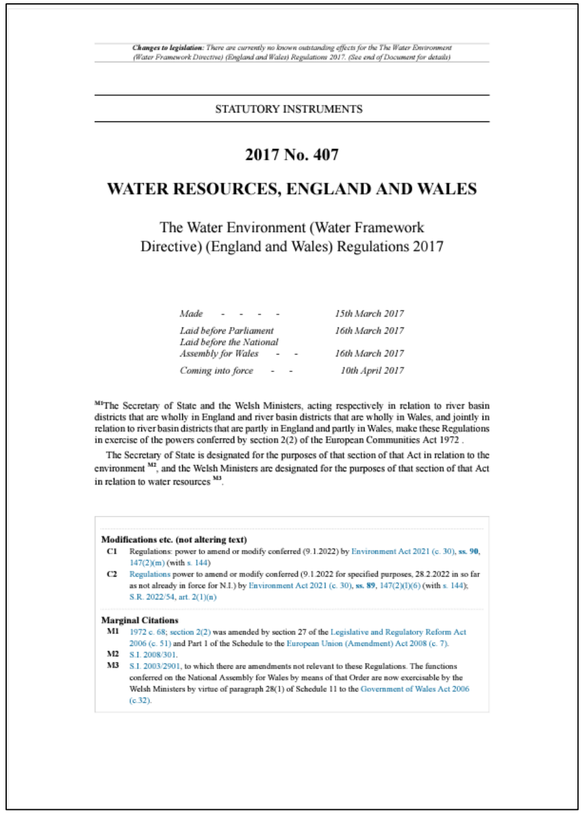
The overarching objective for all RBMPs is for all water bodies in England and Wales to achieve “good” status by 2027. There are carefully defined exceptions, where water bodies are heavily modified, or where the costs are disproportionately expensive.

The main aims of the WFD are to prevent deterioration in water body status, reduce water pollution and conserve aquatic ecosystems and habitats.

Local Authority Planners can work towards delivering the objectives set out in RBMPs by embedding water in policy development and development management activities.

In policy development, this means better consideration of solutions provided by Integrated Water Management in key documents such as Local Plans. For development management, this means considering water at each stage of development management to ensure that development has a net benefit to the water environment.

The checklists in this toolkit will aid in this process (see introduction slides for downloadable checklist links)



Changes to legislation: There are currently no known outstanding effects for the The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. (See end of Document for details)

STATUTORY INSTRUMENTS

2017 No. 407

WATER RESOURCES, ENGLAND AND WALES

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

Made - - - - 15th March 2017
Laid before Parliament 16th March 2017
Laid before the National Assembly for Wales - - 16th March 2017
Coming into force - - 10th April 2017

M3The Secretary of State and the Welsh Ministers, acting respectively in relation to river basin districts that are wholly in England and river basin districts that are wholly in Wales, and jointly in relation to river basin districts that are partly in England and partly in Wales, make these Regulations in exercise of the powers conferred by section 2(2) of the European Communities Act 1972 .

The Secretary of State is designated for the purposes of that section of that Act in relation to the environment M1, and the Welsh Ministers are designated for the purposes of that section of that Act in relation to water resources M3.

Modifications etc. (not altering text)
C1 Regulations: power to amend or modify conferred (9.1.2022) by Environment Act 2021 (c. 30), ss. 90, 147(2)(m) (with s. 144)
C2 Regulations power to amend or modify conferred (9.1.2022 for specified purposes, 28.2.2022 in so far as not already in force for N.I.) by Environment Act 2021 (c. 30), ss. 89, 147(2)(l)(6) (with s. 144); S.R. 2022/54, art. 2(1)(n)

Marginal Citations
M1 1972 c. 68; section 2(2) was amended by section 27 of the Legislative and Regulatory Reform Act 2006 (c. 51) and Part 1 of the Schedule to the European Union (Amendment) Act 2008 (c. 7).
M2 S.I. 2008/301.
M3 S.I. 2003/2901, to which there are amendments not relevant to these Regulations. The functions conferred on the National Assembly for Wales by means of that Order are now exercisable by the Welsh Ministers by virtue of paragraph 28(1) of Schedule 11 to the Government of Wales Act 2006 (c.32).

Flood and Water Management Act 2010

The Flood & Water Management Act 2010 addresses flood and coastal erosion risk management and provides a framework for cooperation in flood risk management. It mandates flood risk management authorities to cooperate and provides Lead Local Flood Authorities (LLFAs) and the Environment Agency (EA) with the power to request information relevant to flood risk management. The Act also establishes Local Flood Risk Management Strategies in England, which are required to be maintained and monitored by LLFAs. Furthermore, the Act also establishes committees to guide local flood and coastal erosion risk management activities at the catchment level and along the coast in England (Regional Flood and Coastal Committees).

Schedule 3 of the Act sets out specific requirements for sustainable drainage systems (SuDS), establishing the framework for approval and adoption, SuDS Approving Bodies (SABs) within unitary authorities or county councils and national standards on SuDS design, operation and maintenance. In January 2023, Defra published a report recommending that Schedule 3 should be implemented, making SuDS mandatory for new development. The government, in its response to the National Infrastructure Commission's study on reducing surface water flood risk, expressed its intent to finalise the Schedule 3 implementation pathway by the end of 2024, following a consultation process.

Environment Act 2021 and Biodiversity Net Gain

The Environment Act 2021 has an overarching objective of improving the environment in the UK, containing several provisions for air and water quality, wildlife protection, waste management, biodiversity, deforestation, wastewater management and environmental governance. The Act includes a requirement for Biodiversity Net Gain (BNG) to be a condition of planning permission. BNG is used in development to ensure that biodiversity on a site is left in a better state than before the development commenced. Standard biodiversity units are used to determine the total biodiversity value of a habitat. These biodiversity units will increase or decrease depending on the habitat size, quality, location and type and the difference in total units for the habitat pre- and post-development will determine the BNG for the site.

Schedule 14 of the Act mandates that planning permissions in England are only granted where a BNG of at least 10% is delivered (with a few exceptions). In other words, planning permission will only be granted to developments which results in a more biodiverse habitat. BNG has been mandatory since 12 February 2024 for developers of major developments and since 2 April 2024 for developers of small sites.

Intro to Planning and Water

How Planning can help improve the Water Environment

Development can affect the water environment directly, and indirectly, therefore all development has the potential help to improve the water environment. Through local plans and planning decisions, LPAs can help to improve the water environment by:

- Controlling where development takes place, taking into consideration potential impacts of development on flood risk, water quality, water resources and the water environment when allocating land for development;
- Taking a sequential risk-based approach to planning by steering development to areas with the lowest flood risk and avoiding areas that are important for current and future flood risk management (e.g., functional floodplains); and
- Influencing the design of developments and encouraging sustainable design principles that generate benefits for flood risk, water quality, water resources and the water environment. LPAs can encourage the enhancement of green and blue infrastructure as well as the implementation of Sustainable Drainage Systems (SuDS), Natural Flood Management (NFM) techniques and Nature-based Solutions (NbS) and water efficiency measures, all of which can provide multiple benefits for water, the environment and people.

Planning can also help improve the water environment ensuring that:

- a development proposal does not add to existing nutrient burdens within catchment where advice has been given to the catchment by Natural England. This is known as nutrient neutrality.
- a development proposal does not increase the rate of water abstraction for dinking water supplies above existing levels or aims to minimise the increase in abstraction to protect the environment and water supplies. This is particularly important in areas where development is causing pressure on water resources.

Goring Weir on the River Thames

Intro to Planning and Water

Oxford to Cambridge Integrated Water Management Framework

Integrated Water Management

Integrated Water Management (IWM) is a different way of thinking about water; using a holistic approach that encompasses not only the obvious “quality and quantity” problems but examines the way water interacts with the human and natural environment.

IWM can be defined as *a collaborative approach to managing land and water which mitigates the risks to people and the environment from having too much and/or too little water, as well as risks related to water pollution.*

Thinking about water in this way, in both Policy Development and Development Management processes, will help achieve wider benefits aligned to Local Authority interests, such as:

- Reducing risk from flooding, increasing water efficiency and reducing water stress;
- Enabling new housing, facilitating economic growth and regeneration;
- Providing more or better blue-green infrastructure, improving accessible public spaces and places, and well-being;
- Avoiding impacts to the designated sites and non-designated sites e.g. avoid risk of deterioration to Water Framework Directive water bodies through increased abstraction to meet additional water demand;
- Enhancing nature recovery, mitigating and adapting to climate change;
- Using resources more sustainably and effectively.

A programme of work to prepare an Integrated Water Management Framework (IWMF) for the Oxford to Cambridge (OxCam) Area is underway.

The programme is hosted by the Environment Agency’s OxCam Team, on behalf of the Defra Group.

The IWMF seeks to promote integration, and generate co-benefits, across planning processes. These include those associated with:

- Flood Risk
- Water Resources
- Water Quality and Environment
- Wastewater

These four water-related aspects are described as “four disciplines” throughout this toolkit, and later pages in this section will outline them in more detail.

Sustainable Drainage Systems (SuDS)

The National Planning Policy Framework (NPPF) gives emphasis to the importance of incorporating SuDS into development projects, unless there is clear evidence that this would be inappropriate. The framework states how SuDS should: a) take account of advice from the lead local flood authority; b) have appropriate proposed minimum operational standards; c) have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and d) where possible, provide multifunctional benefits.

SuDS vary in their form but can include rain gardens, permeable paving, swales and balancing ponds.

Natural Flood Management (NFM)

NFM has similar goals to SuDS but is often part of a larger system of interventions to combat fluvial flooding (where SuDS targets surface water flooding).

With an overall focus towards the reduction of flood risk, NFM processes seek to protect, restore, and mimic the natural functions of catchments, floodplains and the coast to slow and store water.

NFM measures can include soil and land management; river and floodplain management; woodland management; run-off management; and coast and estuary management. NFM can also provide wider benefits including enhancing habitats and biodiversity, improving water quality and availability of drinking water, carbon capture as well as boosting health and wellbeing.

Natural flood management in Portishead

Green and Blue Infrastructure

Beyond the promotion of integrated water management (IWM), the National Planning Policy Framework (NPPF) gives emphasis to the protection, enhancement and additional provision of Green and Blue Infrastructure (GBI). The NPPF identifies GBI as:

A network of multi-functional green and blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity.

A Green Infrastructure (GI) network can include street trees, green roofs/walls, parks, private gardens, allotments, sustainable drainage systems, through to wildlife areas, woodlands, wetlands and natural flood management functioning at local and landscape scale. Linear GI includes roadside verges, green bridges, field margins, rights of way, access routes, and canals and rivers.

Natural England has produced a useful video to explore what GBI is and why it is important.

Continues onto next page.

Flowing River Darent

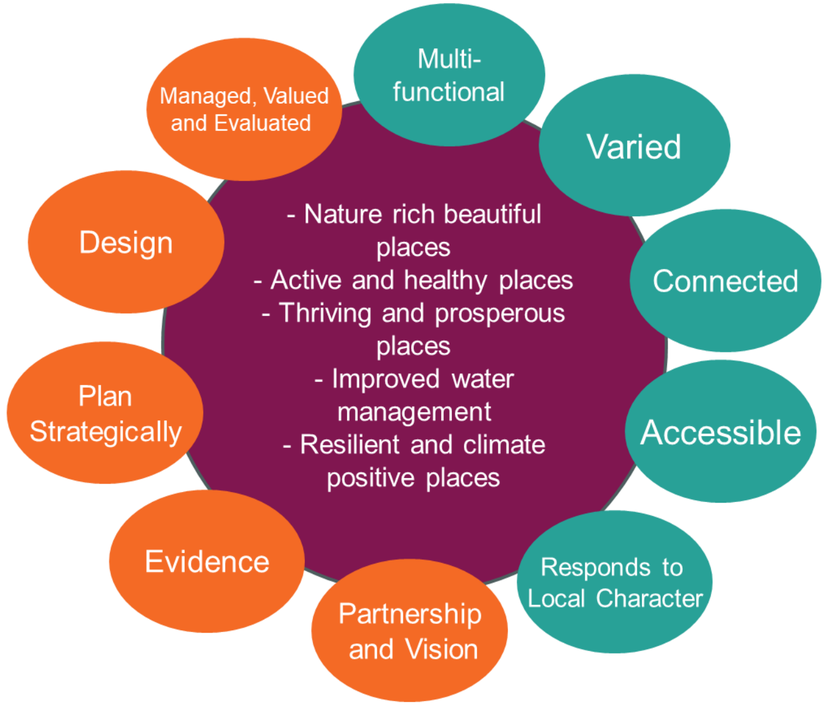
Green and Blue Infrastructure

Continuation

Natural England identify the pursuit of improved water management as one of five benefits that can arise with the effective planning and delivery of Green and Blue Infrastructure (GBI). The other four benefits, that are shown in the diagram to the right, give emphasis to creating places that are nature rich; are active and healthy; and thriving and prosperous; and are resilient and climate positive. These benefits are outlined through Natural England's Green Infrastructure Framework (GIF) that was published in 2023. The GIF can be accessed via this link.

Additional elements within the GIF seek to deliver the type of GBI that is considered effective (the teal-coloured ovals) and help to outline the steps for delivering GBI (the orange-coloured ovals). Specific elements include a *Green Infrastructure Mapping Tool*, a Green Infrastructure Planning and Design Guide, plus process journeys to help LPAs, and others, to properly realise the ambitions of Natural England.

Green Infrastructure Principles



Intro to Planning and Water

Oxford to Cambridge
Integrated Water Management Framework

Nature Based Solutions

Interventions relating to Green and Blue Infrastructure (GBI) are often referred to as a type of Nature-Based Solution (NbS). As with GBI, these solutions are identified as being critical for addressing key societal challenges. Although NbS can take a variety of forms, their focus is on the protection, sustainable management and restoration of both natural and modified ecosystems to benefit both biodiversity and human well-being. As the World Wildlife Fund explain, NbS are based on the notion that when ecosystems are healthy and well-managed, they provide essential benefits and services to people, such as reducing greenhouse gas emissions, securing safe water resources, making air safer to breathe, or providing increased food security.

Opportunities for NbS will vary by location and by geography, with the arising benefits and functions responding to the specific interventions that are made. Within an urban context, NbS can include green roofs and walls, rain gardens, constructed habitats and sustainable drainage systems. Although these types of intervention can help to manage surface water and limit flood risk, these types of urban greening can be good for nature, offer shade and offer opportunities for urban cooling, and support physical activity and mental well-being.

A useful report on the potential for NbS was prepared by the British Ecological Society in 2022.

Note that Natural Flood Management and some Sustainable Drainage systems (SuDS) (those that incorporate solutions based on natural systems) are types of NbS.

Nature based solutions in new development in Cambridgeshire

Policy Development

Developing the Evidence Base

Engaging with Stakeholders

Drafting the Plan & Policies

Examination

Monitoring & Review

This section of the toolkit covers the stages involved in preparing a Local Plan. It covers all aspects of development of a Local Plan. Each button above will take you to the relevant section of the toolkit to access the stage specific checklist and associated resources.

Developing the Evidence Base

Oxford to Cambridge
Integrated Water Management Framework

Developing the Evidence Base

Engaging with Stakeholders

Drafting the Plan & Policies

Examination

Monitoring & Review

Good Local Plans rely on robust evidence. The strength and quality of water-related policies is directly linked to the strength and quality of the evidence to support the Plan.

Early consideration of the water environment, and collation of appropriate evidence, are the best ways of achieving change under the water disciplines. Considerations should be given to cumulative impacts and future environmental capacity.

Catchment Partnerships can be a rich source of local evidence and expertise on water issues and have a strong interest in supporting you, especially in realising water quality and environmental aims in Local Plans.

The checklist in this section has been split by water disciplines.

New homes in Cambridgeshire

Checklist

Resources

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Developing the Evidence Base - Checklist

Oxford to Cambridge
Integrated Water Management Framework

Developing the Evidence Base
Engaging with Stakeholders
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Monitoring & Review

Flood Risk | Water Resources | Water Quality and Environment | Wastewater

Developing the Evidence Base items to consider – Flood Risk	Resource(s)
EB_FR1: You should produce a Strategic Flood Risk Assessment (SFRA) that can identify risks from all sources of flooding within the LPA's administrative area. The SFRA must also consider the cumulative impact that development or changing land use would have on flood risk.	Pages 1,2 & 3 Page 5
EB_FR2: The SFRA must be prepared by professionals with appropriate knowledge and competency. If consultants are to be used, you should create clear channels for reporting to ensure that the conclusions, and arising implications of the SFRA, are properly understood. You, in collaboration with potential consultants where relevant, will need to ensure that updates, and key findings, are disseminated to key stakeholders, for instance, when the plan's Sustainability Appraisal is prepared. You should facilitate regular engagement with the Environment Agency (EA) and water companies.	Pages 1,2 & 3 Page 5
EB_FR3: You should set out an appropriate governance structure to support the preparation of a SFRA. Governance arrangements should help to define scoping; consultation and engagement; production and adoption, implementation; monitoring and review; data requirements and ongoing data management including Geographic Information System (GIS).	Pages 1,2 & 3
EB_FR4: You should effectively engage with the Environment Agency, and neighbouring LPAs, to ensure there is sufficient knowledge sharing about the scope and milestones of the SFRA being prepared. Consideration should be given to developing joint SFRAs.	Pages 1,2 & 3

Developing the Evidence Base - Checklist

Oxford to Cambridge
Integrated Water Management Framework

Developing the Evidence Base
Engaging with Stakeholders
Drafting the Plan & Policies
Examination
Monitoring & Review

Flood Risk | Water Resources | Water Quality and Environment | Wastewater

Developing the Evidence Base items to consider – Flood Risk	Resource(s)
EB_FR5: You should consider whether a Level 2 Strategic Flood Risk Assessment (SFRA) might be necessary, and if so, engage with the Environment Agency (EA), and other relevant stakeholders, about project scope.	Pages 1,2 & 3
EB_FR6: You should review the EA's Flood Risk Management Plans for relevant river basin districts. You should use the EA's flood plan explorer to review the objectives and proposed measures that have been set for flood risk areas in each river basin district.	Page 3
EB_FR7: You should engage with Lead Local Flood Authorities (LLFAs) and review their Local Flood Risk Management Strategy (LFRMS), to identify relevant priorities and actions for your administrative area.	Page 3
EB_FR8: You should use the Sequential Test and risk-based approach in allocating land in the plan.	Pages 1,2 & 3
EB_FR9: You should direct development away from all sources of flood risk.	Pages 1,2 & 3 Page 5
EB_FR10: Your call for sites, and accompanying work to prepare a Strategic Housing and Economic Land Availability Assessment (SHELAA), should ensure that sites are screened for flood risk.	Page 4

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Developing the Evidence Base items to consider – Flood Risk	Resource(s)
EB_FR11: By collaborating with relevant stakeholders, you should seek information about the effectiveness of existing flood defence structures or systems. You should also identify the nature, form, and timing of any future flood defence system.	Page 6
EB_FR12: You, or your consultants, should ensure that a sufficiently clear objective is set to protect against flood risk in the Sustainability Appraisal. Up to date flood data, and other relevant evidence, should be used to effectively scope the sustainability issues that the Local Plan should be addressing.	Page 5
EB_FR13: You should make sufficient provision for the infrastructure required for managing/ mitigating flood risk in the Local Plan.	Page 6

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Developing the Evidence Base items to consider–Water Resources	Resource
EB_WR1: You should consult the list of areas of serious water stress to identify whether any such areas correspond to your administrative area. These could be used to inform planning requirements and local plan policies for increased water efficiency. Learn more about shared standards in water efficiency for local plans here.	Page 7
EB_WR2: You should source relevant evidence relating to water supply and demand from the water companies serving your area. Key documents include the Regional Water Resources Plans, as well as the Water Resource Management Plans (WRMPs) that water companies in England must produce. You should refer to data about how water demand is expected to change, and the kind of responses being planned in response (such as new infrastructure). Regard should be given with respect to how Local Plans can reflect the water availability set out in water resources management plans and vice versa.	Page 7 & 8
EB_WR3: You should develop a close working relationship with relevant water companies to help share intelligence about future growth and development, and to ensure planning assumptions are properly understood.	Page 8
EB_WR4: You should prepare and use a Water Cycle Study, Integrated Water Management Study or an equivalent evidence study that can help to anticipate water related challenges, including those relating to supply, across a plan period.	Page 8 & 9
EB_WR5: You should identify what the local long-term implications of climate change are. Water resource policies should reflect these local impacts.	Page 9

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Developing the Evidence Base items to consider–Water Resources	Resource(s)
EB_WR6: You, or your consultants, should ensure that a sufficiently clear objective is set to capture the importance of having sufficient water resource within a Sustainability Appraisal (incorporating Strategic Environmental Assessment). Relevant Regional Water Plans, and Water Resource Management Plans, should be used to scope out key sustainability issues as they relate to your administrative area.	Page 10
EB_WR7: You should take account of, and assess risks, relating to the delivery of appropriate water supply as part of infrastructure planning. In addition, you should track the timescales over when Water Resource Management Plans are prepared.	Page 10

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Developing the Evidence Base items to consider – Water Quality & Environment	Resource(s)
EB_WQ1: You should review relevant data about local water quality and consider how the policies and proposals of a Local Plan can be used to deliver appropriate mitigation.	Page 11
EB_WQ2: You should refer to the most relevant River Basin Management Plan and ensure that the proposed Local Plan is compliant by ensuring that its policies and proposals support the achievement of stated goals for improving the water environment.	Pages 12 & 13
EB_WQ3: You should check to see if there are any defined 'sensitive catchment areas' that fall within your administrative area. You should also see if there are any 'nitrate sensitive areas' within your area. With this information, you should take measures to ensure their protection and safeguarding through the policies and proposals of the Local Plan.	Page 14
EB_WQ4: You should be aware of designations relating to the protection, and safeguarding, of areas providing sources of drinking water. These include Source Protection Zones; Drinking Water Protected Areas (Surface Water); Drinking Water Safeguard Zones (Surface Water); and Drinking Water Safeguard Zones (Groundwater). You should steer potentially polluting development away from Source Protection Zones.	Page 15 & 16

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Developing the Evidence Base items to consider – Wastewater	Resource(s)
EB_WW1: You should identify areas where there are drainage-related constraints and gather intelligence surrounding the sufficiency and capacity of wastewater infrastructure.	Page 17
EB_WW2: You should consider sewerage capacity in planning for new development	Page 18
EB_WW3: You should identify necessary wastewater infrastructure upgrades and support their delivery through policy	Page 18

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Developing the Evidence Base Resources – Flood Risk

Sequential Test & Strategic Flood Risk Assessments (SFRA)

Getting the right kind of development in the right place will ensure that today's growth is resilient to tomorrow's climate. Recognising sources of flood risk, and taking action to help avoid this risk, is an important goal. As the Environment Agency (EA) states, flooding can arise from:

- Rivers
- The sea
- Groundwater
- Reservoirs
- Surface water
- Sewer flooding.

All LPAs will need to produce a Level 1 SFRA to assess the risk posed by these flooding sources. The EA provides guidance on how to prepare a strategic flood risk assessment and what information needs to be included. It also provides a supporting Good Practice Guide on SFRAs (2021), which provides a dedicated 'SFRA check list'.

You may also need to produce a Level 2 SFRA, depending on whether you are planning for development within flood risk areas (i.e. if you cannot allocate all land for development outside flood risk areas). The EA's guidance sets out when LPAs will need to review or update an SFRA to ensure that they have a sufficiently robust evidence based against which to prepare policies and to take decisions about the type and location of development being proposed via a Local Plan. An SFRA will be required as evidence by LPA officers to apply the Sequential Test and the exception test. The EA have more information on the Sequential Test here. Relevant training is available here.

Developing the Evidence Base Resources – Flood Risk

Sequential Test & Strategic Flood Risk Assessments (SFRA)

The primary purpose of the Sequential Test during the plan-making process is to steer vulnerable development toward areas of lowest flood risk. In simple terms, it requires planners to seek to allocate sites for future development within areas of lowest flood risk in the initial instance. As such, it acts as the most effective way of addressing flood risk, because it places least reliance on measure such as flood defences. Plan makers should use an up-to-date SFRA as evidence for applying the test.

The government's Planning Practice Guidance (Flood Risk and Coastal Change: Paragraph 25) provides a diagram (Diagram 2) that can help to guide you through the application of the Sequential Test for plan preparation.

Annex A to the National Planning Policy Framework (December 2023) presents a 'flood risk vulnerability' classification.

SFRAs can be technical documents that can contain modelling and assumptions that some readers will be unfamiliar with. Ensuring that the SFRA is clearly written, with findings properly explained, is an essential goal for when the document is referred to within broader plan making.

The Environment Agency's (EA) SFRA guidance outlines a need for 'early engagement' and ongoing collaboration. Engaging with water-related stakeholders will be important since they will be able to provide additional insight on the flood risk arising from surface water, sewers, groundwater, reservoirs and canals. The EA's guidance also emphasises the need for a SFRA to be:

- Comprehensive
- Digitally-focused
- Frequently updated
- Shared and promoted.

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Flood Risk Management Plans and Local Flood Risk Management Strategy resources

Flood risk management plans (FRMPs) are strategic documents that explain the objectives, and associated measures (or actions), that are needed to manage flood risk both national and locally. They explain how different organisations, stakeholders and communities should work together to manage flood risk in England. Flood risk areas are defined via the Environment Agency's (EA) flood plan explorer; these areas are considered to have a nationally significant level of flood risk from rivers, the sea or surface water. A distinction is made between areas at 'Risk of Flooding from Rivers and Seas' (RoFRS) and areas at 'Risk of Flooding from Surface Water (RoFSW)'.

The EA provides an interactive website where further information can be found about FRMPs.

Information on the purpose of a LFRMS has been developed by the Local Government Association. There is separate guidance on how to prepare one.

Whilst the Flood Risk Regulations have now been repealed (the driver for FRMPs), there is an expectation to see the continued implementation of FRMPs by the EA, Lead Local Flood Authorities, other Risk Management Authorities and local partners. These plans go up to 2027.

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Strategic Housing and Economic Land Availability Assessment (SHELAA) resources

Paragraph 72 of the National Planning Policy Framework (NPPF) (December 2024) states that strategic plan-making authorities should have a clear understanding of land available for development in their area through the preparation of a strategic housing and economic land availability assessment (SHELAA). This should help to identify a sufficient supply and mix of sites considering their availability, suitability and likely economic viability.

Planning Practice Guidance sets out the 5 stages for producing a SHELAA. At Stage 1, flood risk should be considered as a potential physical constraint to development during surveys of sites/locations. At Stage 2, there should be a consideration of whether constraints to development (including flood risk) can be overcome.

Various tools and resources are available to help planners assess the impact of climate change on their local area. Guidance on when and how local planning authorities, developers and their agents should use climate change allowances in flood risk assessment is available on Gov.uk. The Climate Just online mapping resource provides information on how climate change affects different communities and how to ensure that policies are equitable and consider the needs of all members of the community. It includes a Neighbourhood Flood Vulnerability Index and a Social Flood Risk Index.

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Sustainability Appraisal resources

A sustainability appraisal (SA) is a systematic process that must be carried out during the preparation of a Local Plans. It incorporates the requirements of the Strategic Environmental Assessment Regulations.

Its role is to promote sustainable development by assessing the extent to which the emerging plan, when judged against reasonable alternatives, will help to achieve relevant environmental, economic and social objectives.

Your SA should bring together, and synthesise, key flood-related evidence and identify areas of risk. A clearly worded objective should be devised to ensure that flooding matters are properly considered through all appraisal activity (including policies, proposals and site allocations).

Feedback should be sought from the Environment Agency (EA) about the robustness of the objective being used.

Groundwater Flooding

You should engage with the EA's data on Groundwater Flooding.

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Infrastructure Evidence Resources

Infrastructure delivery and funding is complex, with multiple delivery partners involved and often little integration between them. Establishing a reliable, concise and flexible Infrastructure Delivery Plan (IDP) is therefore important in helping to promote integration and ensuring that investment decisions are based on a sound understanding of infrastructure needs. Your IDP should identify schemes required to support the implementation of the policies in the Local Plan – including sufficiently mitigating and managing flood risk, ensuring a sufficient water supply and the removal and processing of wastewater.

The Planning Advisory Service produced in a guide to the steps required for infrastructure planning in 2010 (PAS: A steps approach to infrastructure planning and delivery). Step 5 covers the production of an IDP as part of the Local Plan evidence base.

Your IDP should set out the major sources of flood risk (from evidence base documents), any plans/strategies/programs in course, any planned future provision (e.g. planned flood defences), any additional provision for flood risk management arising from new development, and an outline of funding options. Timescales for proposed delivery of infrastructure should also be outlined. It will be important to ascertain the protection offered by existing defence systems and to identify proposals where new, or reinforced, defence systems are being proposed. A useful source of evidence is provided via the AIMS Spatial Flood Defences dataset that shows flood defences owned, managed or inspected by the Environment Agency (EA). Your IDP should reference the Flood Risk Management Plans of the EA.

Your IDP should also refer to the Drainage and Water Management Plans of water and sewerage companies.

Local Flood Risk Management Strategies, as prepared by Lead Local Flood Authorities (LLFAs), also refer to relevant infrastructure plans.

You should actively engage with key water-focused stakeholders to ensure that they are aware of what an IDP seeks to do, and the type of information they can contribute.

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Water Stressed Area Resources

Areas of serious water stress are defined as those where the current household demand for water is a high proportion of the current effective rainfall which is available to meet that demand; or the future household demand for water is likely to be a high proportion of the effective rainfall which is likely to be available to meet that demand. The Environment Agency (EA) has a list of areas of serious water stress in England. In areas of serious water stress, you should engage with the relevant water company to ensure policies supporting the management of water demand are incorporated into your Local Plan. You could consider working with developers and water companies to promote water neutral development.

In Sussex North area, refer to Natural England's position statement regarding water neutrality.

Regional Water Resource Plans Resources

Across England, five regional water resources groups are responsible for producing Regional Water Resources Plans. The plans seek to develop optimum solutions for securing future water supplies and environmental resilience. Two of these regions, Water Resources South East (WRSE) and Water Resources East (WRE) provide water and waste services in the Oxford to Cambridge area:

The Regional Water Resources Plan for Eastern England was finalised in December 2023.

- At the time of producing this tool, a Revised Draft Regional Plan Water Resources South East was available (published August 2023). The plans include data on supply-demand deficits at the regional scale and targets for demand reduction, including through household and non-household water efficiency options. Water company recommendations should be used to help formulate, and inform, the policies and proposals of Local Plans. The detailed evidence they possess can help to create new, demand-responsive policy. Learn more about shared standards in water efficiency for local plans here.

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Water Resource Management Plans

Water Resource Management Plans (WRMPs) are produced by water companies. These plans must forecast supply and demand over a minimum period of 25 years. If a deficit is forecasted, the company is required to consider supply-side options, to increase the amount of water available and demand-side options, which reduce the amount of water customers use.

To ensure planning assumptions are properly understood you should develop a close working relationship with your relevant water company(ies) to help share intelligence about future growth and development. Section six of the Water Resources Planning Guide explains how future demand forecasts should be calculated. The guide has been jointly prepared by the Environment Agency (EA), Natural Resources Wales, and the Office for Water Services. Developing close working relationships will assist in reciprocal receipt of information to support infrastructure planning (e.g. as part of the IDP). You should enquire as to whether there are any water efficiency position statement, such as the Anglian Water Position Statement beyond the one contained in the WRMP.

Water Cycle Study

Although Water Cycle Studies (WCS) are not statutorily required. Developed alongside the EA and relevant water company, they can provide useful intelligence around the capacity of supply and associated infrastructure capacity; including for wastewater. However, guidance from the EA on how to prepare a WCS refers to their value in considering multiple water disciplines together. This guidance complements that provided by the Construction Industry Research and Information Association (CIRIA) on Integrated Water Management. A WCS can be used to develop local and site-specific policy on the four water disciplines by undertaking detailed study. For example, the need for a new, and more ambitious policy on water efficiency, would be supported by up-to-date data on projected growth levels and the needs of existing development, the needs of the environment, and changes in water availability due to climate change.

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Integrated Water Management Study

An Integrated Water Management Study (IWMS) aims to provide a robust evidence base considering water holistically and early in the planning process. IWMS can incorporate different studies and assessments (e.g., Water Cycle Studies (WCS) and Strategic Flood Risk Assessments) to enable the consideration of multiple water disciplines in parallel and to identify opportunities and barriers for an integrated approach to water management (see Greater Cambridge's Outline WCS completed as part of an IWMS for the emerging joint local plan).

Considering the implications of climate change in water resource planning

Addressing climate change is one of the core land use planning principles which the National Planning Policy Framework expects to underpin both plan-making and decision-taking. Local Plans will require this in order to be found sound. The Climate Change Act 2008 requires government to "*assess regularly the risks to the UK of the current and predicted impact of climate change"* and to set out objectives as and proposals to meet those objectives. The UK's climate change risk assessment may provide helpful information for plan making – Chapter 4 of the 2022 Technical Report provides detail on the water scarcity risks (assessments are required to be updated every 5 years).

Local risk assessments can also be used to identify climate risks which the planning system can address. However other parts of a Local Plan's evidence base will also include information on climate change risks – including Water Resource Management Plans / Water Cycle Studies / Integrated Water Management Studies. The UK's Planning Practice Guidance on Climate Change provides further guidance. The Royal Town Planning Institute and Town and Country Planning Association have produced a Guide for Local Authorities on Planning for Climate Change (2021), however adaptation measures in the report focus more on flood risk than water resource availability.

The UK Climate Projections provide information on the potential impacts of climate change on the UK, including changes in temperature, rainfall and extreme weather events, which can be used to inform policy development. It is important to recognise that evidence on climate change is dynamic. It is vital that you are aware of regular updates of the climate science.

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Sustainability Appraisal Resources

Understanding available water resource could be an important factor in the consideration of different growth options, as well as in the consideration of different site options. Engagement with water companies and the Environment Agency (EA) should help to identify the most relevant data to be included in a Sustainability Appraisal.

Infrastructure Delivery Plan resources

Your Infrastructure Delivery Plan should track investments and identify potential risks to delivery and the associated phasing of development relating to the delivery of appropriate water supply.

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Water quality resources

The Environment Agency's (EA) Water Quality (Data) archive provides a comprehensive account of local water quality. Water quality data is also available via the online resource associated with River Basin Management Plans. The data portal provides access to specific river basin districts, the management catchments that fall within them, and then the constituent operational catchments.

Further information on water quality can be provided by Water Cycle Studies (WCS), Integrated Water Management Studies (IWMS) (see Greater Cambridge's Outline WCS commissioned as part of an IWMS for the emerging local plan), and the Drainage and Wastewater Management Plans and Water Resource Management Plans of the water and drainage companies. Local Record Centres may hold relevant information on the water environment. Also relevant are diffuse water pollution plans and nutrient management plans, as produced by Natural England and the EA. Relevant stakeholders should be contacted to facilitate the appropriate exchange of intelligence on water quality.

Groundwater

You should engage with the EA's data on Groundwater Management Units and the Groundwater Vulnerability Maps that are available through the Multi-Agency Geographic Information for Countryside (MAGIC). The Groundwater Vulnerability Maps show the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a single square kilometre.

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River Basin Management Plans

The Water Environment (Water Framework Directive) (England & Wales) Regulations 2017 (referred to as 'The WFD'), is a Statutory Instrument for managing the water environment across England and Wales. The main aims of the WFD are to prevent deterioration in water body status, reduce water pollution and conserve aquatic ecosystems and habitats.

The WFD divides England and Wales into 11 'River Basin Districts' (RBDs). Each RBD is divided into water catchments and, at a smaller scale, "water bodies". Every piece of land sits within a catchment and has a corresponding water body, fitting together like a jigsaw. Each water body is monitored and classified to determine its overall "status", reflecting chemical and ecological criteria.

The WFD requires the Environment Agency (EA) to develop a management plan for each RBD, known as a River Basin Management Plan (RBMP). RBMPs are made up of a series of documents and online systems presenting downloadable data and maps for the River Basin, its Management Catchments, Operational Catchments and individual water bodies.

RBMPs must be updated every six years to ensure that data is up to date and objectives remain relevant. The last update was completed in 2022, and the next is due in 2027.The overarching objective for all RBMPs is for all water bodies in England and Wales to achieve "good" status by 2027. There are carefully defined exceptions, where water bodies are heavily modified, or where the costs are disproportionately expensive.

In drafting the RBMP, there is a legal requirement for the EA to consult LPAs (amongst others) and to take their representations into account.

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River Basin Management Plans – *(Continued)*

Each River Basin Management Plan (RBMP) contains 'summary programmes of measures' needed to achieve the environmental objectives of the stated river basin district. A summary of these measures can be accessed via the webpages of the Environment Agency (EA). The 'summary programme of measures' include the main mechanisms, programmes, and strategic initiatives to protect and improve the water environment in each river basin district. They include:

- 'basic' measures, for example, action required by legislation
- 'supplementary' measures which can be regulatory or voluntary initiatives such as codes of practice

The 'summary programmes of measures' also:

- describe the main types of on-the-ground action to be implemented
- signposts to where more detail of specific, local actions can be found.

The 'summary programmes of measures', that are included in each RBMP, comprise the following components:

- Summary programmes of measures
- Summary programmes of measures data
- Summary programmes of measures - mechanisms
- Catchment partnership pages
- River basin planning: local measures case studies

The Catchment Data Explorer also holds downloadable data. This guidance page is useful in helping to understand and navigate the Catchment Data Explorer site.

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‘Sensitive catchment areas’ and ‘nitrate sensitive areas’

The Secretary of State, in accordance with powers provided via the Water Industry Act, has designated catchment areas that are considered sensitive to phosphorus or nitrogen. The areas that have been designated are those that are in an unfavourable condition, by virtue of water-based pollution associated with one or both nutrients. The catchment areas that Defra has designated are available online. The list includes a selection of Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SACs), Special Protection Areas (SPAs), and Ramsar Sites.

In designated catchments, water companies are directed to ensure wastewater treatment works serving a population equivalent over 2,000 meet specified nutrient removal standards by 1 April 2030. Competent authorities (including local planning authorities) considering planning proposals for development draining via a sewer to a wastewater treatment works subject to the upgrade duty are required to consider that the nutrient pollution standard will be met by the upgrade date for the purposes of Habitats Regulations Assessments.

Nitrate Vulnerable Zones (NVZs) are areas designated as being at risk from agricultural nitrate pollution. They include about 55% of land in England.

Nutrient Neutrality is a means of ensuring that a development plan or project does not add to existing nutrient burdens within catchments, where advice has been given to the catchment by Natural England. This is so there is no net increase in nutrients as a result of the plan or project. Refer to Natural England’s Nutrient Neutrality Principles and Nutrient Neutrality FAQs by the Planning Advisory Service. Catchments where advice applies can be viewed through the Multi-Agency Geographic Information for Countryside (MAGIC) under ‘Designations - Land-based designations - Statutory' section under 'Nutrient Neutrality Catchments’.

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Source Protection Zones; Drinking Water Protected Areas (Surface Water); Drinking Water Safeguard Zones (Surface Water); and Drinking Water Safeguard Zones (Groundwater)

The Environment Agency (EA) is obliged to protect groundwater sources, that are used to supply drinking water, from pollution. Sources include wells, boreholes and springs. The EA define Source Protection Zones (SPZ) as zones which show the level of risk to the source from contamination. This could be from any activity that might cause pollution in the area. For example, storing pollutants like petrol underground, soakaways from septic tanks to the ground. The closer the activity, the greater the risk. Through their approach to groundwater protection, the EA:

- Adopts pollution prevention measures in areas of high risk
- Monitors the activities of nearby potential polluters.

There are three zone types (inner; outer; and total catchment) and these are described via EA guidance.

All sources of pollution within these zones are strictly controlled, including through the allocation of built development. As such, they constitute a potential constraint that can be used to sieve and allocate potential development sites. Designated areas should be incorporated into the methodologies for Strategic Housing and Economic Land Availability Assessments (SHELAAs) and Sustainability Appraisals as part of the Local Plan evidence base.

Drinking Water Protected Areas (Surface Water) are defined by the Water Environment (Water Framework Directive) (England & Wales) Regulations 2017 (or WFD Regulations) as locations where raw water is abstracted for human consumption providing, on average, more than 10 cubic metres per day, or serving more than 50 persons, or is intended for such future use. Contributing areas may comprise rivers, lakes, canals and reservoirs.

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Drinking Water Safeguarding

Drinking Water Safeguard Zones (Surface Water) are catchment areas that influence the water quality for their respective Drinking Water Protected Area (Surface Water). They are identified where the protected area has been assigned as being “at risk” of failing the drinking water protection objectives of the Water Environment (Water Framework Directive) (England & Wales) Regulations 2017.

Drinking Water Groundwater Safeguard Zones (SgZs) are established around public water supplies where additional pollution control measures are needed. Safeguarded areas are aligned against SPZs (as outlined above).

Further guidance on SPZs is provided by the Environment Agency (EA) and you can download groundwater SPZs or view them as a Geographic Information System (GIS) layer from Defra’s data services portal

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Developing the Evidence Base Resources – Wastewater

Wastewater resources

You are expected to identify those developments where wastewater is not expected to drain into a public sewer. You are also expected to assess the capacity of your administrative area to receive effluent from development, without preventing relevant statutory objectives from being met. You should engage with relevant stakeholders – including the Lead Local Flood Authorities (LLFAs) and the statutory drainage and water companies – to outline the type of intelligence that is needed for plan making, and the timescales over when the evidence is required. LLFAs comprise unitary authorities or county councils who are responsible for developing, maintaining and applying strategies for managing local flood risk. LLFAs are required to maintain a register of flood risk assets, and have lead responsibility for managing the risk of flooding from surface water, groundwater and ordinary watercourses

You are also expected to refer to the Local Flood Risk Management Strategies (LFRMS) that are produced by the LLFAs. LFRMS assess local flood risk; set objectives for managing local flooding; and list the costs and benefits of measures proposed to meet the objectives set. It will be necessary for you to identify areas that have been designated as Critical Drainage Areas (CDAs). A list of these is available from the Environment Agency (EA). Drainage and wastewater management plans (DWMPs) are produced by water and sewerage companies and look at current and future capacity, pressures and risk to their networks such as climate change and population growth. These documents are published by individual water companies.

Water Cycles Studies (WCS) or Integrated Water Management Studies (IWMS) should support your development plan in ensuring that there is enough wastewater for new development – for example, the capacity to collect, transport and treat wastewater (both foul and surface water). Any WCS or IWMS should draw on DWMPs to identify where there is limited capacity and proposals to address these issues. Finally, integrated water management (IWM) approaches should be followed to coordinate management of wastewater with other parts of land and water governance.

Planning Practice Guidance (PPG) on wastewater requires you to consider the capacity of wastewater infrastructure. Wastewater treatment plants are waste developments and handled by the waste planning authority. Early discussions between strategic policy-making authorities and sewerage companies can help to ensure that proposed growth and environmental objectives are reflected in company business plans.

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Water Cycle Studies and Integrated Water Management Studies

A Water Cycle Study (WCS), developed alongside the Environment Agency (EA) and relevant water company, can indicate whether the planned scale, location and timing of planned development within the Plan Area is achievable from the perspective of supplying wastewater services. It can also identify wastewater capacity issues at individual proposed sites. This can indicate where it will be necessary to construct additional infrastructure to accommodate the development.

Based on the information provided within a WCS, necessary infrastructure upgrades can be identified. This infrastructural requirement should be incorporated into an Infrastructure Delivery Plan (IDP) – see guidance on Page 8 on preparing a robust IDP.

A WCS can be commissioned as part of an Integrated Water Management Study (IWMS), which aims to holistically consider water early in the planning process (see Greater Cambridge's Outline WCS completed as part of an IWMS for the emerging joint local plan). Undertaking an IWMS enables you to consider multiple water disciplines in parallel (e.g., water quality and environment alongside water resources and flood risk) when assessing the potential implications from planned growth in a region, allowing you to identify opportunities for integrated water management and prioritise sustainable water management strategies.

Liaising with water companies is another way to gain valuable knowledge on water, adding value to Local Plans.

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Ensuring relevant stakeholders are involved in developing and reviewing evidence, and commenting on and contributing to policy development helps generate strong water policies and gain wider stakeholder ‘buy-in’ to the plan, which can make it easier to implement.

Stakeholders involved in developing your Local Plan include the general public, local organisations, non-governmental organisations, businesses, infrastructure providers and operators (e.g. water companies) as well as statutory consultees.

You will also benefit from ongoing communication with colleagues in relevant departments at the council to ensure alignment. It is already a statutory requirement to consult with the Local Highway Authority, but engaging other relevant departments such as the Parks Team will help to join-up ideas, align actions and share responsibilities.

Engaging stakeholders such as Catchment Partnerships and Local Nature Partnerships at this stage can also save time, give access to specialist knowledge and add real value in ensuring that the four water disciplines are properly considered.

EA staff in a meeting

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Engaging with Stakeholders items to consider	Resource(s)
ES1: Your Statement of Community Involvement should have a specific section, or table, highlighting why particular organisations should be consulted, and at what stage • Your SCI should also be prescriptive on which stakeholders are to be consulted on which themes.	Page 1
ES2: You must set a clear, and updated, timeline for engagement. The timeline should give a reasonable amount of time to allow for responses.	N/A
ES3: You should adopt a cross-boundary and catchment-based approach • Water related themes should be highlighted during meetings with other LPAs.	Page 1
ES4: You should complete a stakeholder mapping exercise for each of the water disciplines and record contact details of key personnel at each organisation	Page 1 & Page 2
ES5: You should engage with relevant stakeholders about the infrastructure needed to deliver the growth requirements	Page 3

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Engaging with Stakeholders items to consider	Resource(s)
ES6: You should engage with the local water company at an early stage in the plan making process and on a regular basis throughout plan production	Page 1
ES7: You should liaise with the Lead Local Flood Authority (LLFA) and, when implemented, the SuDS Approval Bodies (SABs) to identify potential opportunities to reduce and manage surface water flooding	Page 1
ES8: You should reinforce to key water stakeholders that they should be formally engaging with the plan making process	N/A
ES9: You should delegate one key policy planner as a 'water lead', so that they can build expertise, maintain a network of key stakeholders, and be a key point of contact for stakeholders regarding water-related policies and themes. • The water lead should attend regular Catchment Partnership meetings to facilitate these actions.	Page 1
ES10: You should better engage stakeholders in the Sustainability Appraisal (incorporating Strategic Environmental Assessment) process	Page 2

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Statement of Community Involvement
Where water is a key issue in your administrative area, the Statement of Community Involvement (SCI) should identify who will be consulted under the duty to cooperate, and how they will be engaged to resolve issues. The SCI should outline the importance of ongoing engagement.

Documenting Engagement
With regards to documenting engagement with the statutory consultees, and other key stakeholders, the National Planning Policy Framework (NPPF) states how collaboration can be evidenced through the production of 'Statements of Common Ground'. As the NPPF explains, these statements can demonstrate how strategic issues have been addressed or are continuing to be discussed. The statements need to be produced using the approach outlined in national Planning Practice Guidance and be made publicly available throughout the plan-making process to provide transparency. The Planning Advisory Service has published guidance about the role of Statements of Common Ground and provide a template to help guide their development.

Catchment-Based Approach
Water supply and water quality issues often cross local authority boundaries and can be best considered on a catchment basis. A useful way of maintaining a catchment-based approach is to liaise with your local Catchment Partnership(s). To find your local Catchment Partnership and their contact details, visit https://catchmentbasedapproach.org/.

Stakeholder Engagement Advice (Flood Risk)
The Local Government Association have some advice on stakeholder engagement in relation to flooding and flood risk.

Stakeholder Mapping
The Integrated Water Resources Management Action group have a water-specific Stakeholder Analysis tool; the steps and methodology may be of use (although this explains how to complete a full stakeholder analysis as opposed to just mapping; this could be a useful exercise if time and resource allows). There are also a list of 'water' stakeholders on the next page of resources to help begin this process.

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Water-Related Stakeholders

Below is a list of stakeholders relevant to water topics (in **bold** are those subject to the duty to cooperate, defined by Part 4 of the Town and Country Planning (Local Planning) (England) Regulations 2012).

- **Environment Agency (EA)**
- Catchment Partnerships
- Internal Drainage Boards
- **Natural England**
- Local Nature Partnership
- Relevant water companies
- Lead Local Flood Authorities (LLFA); including those from neighbouring Local Authorities where watercourses span jurisdictions.
- Local Flood Groups and other community organisations
- Wildfowl and Wetlands Trust
- Wildlife Trust
- Canal & River Trust
- National Highways
- Network Rail

Sustainability Appraisals (incorporating Strategic Environmental Assessment)

Where water is likely to be a significant issue in your Local Plan, you should ensure that all key water stakeholders are aware of and involved in the sustainability appraisal process. You are required to consult with the EA (and other consultation bodies) as part of Sustainable Appraisal (SA) preparation, however you may invite other stakeholders who, in your opinion, are affected or likely to be affected by, or have an interest in, the decisions involved in the assessment and adoption or making of the plan. This could include other key water stakeholders.

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Sharing information with stakeholders
Providing water stakeholders with sufficient detail and information regarding the emerging plan is vital. This is of particular importance with regards to proposed growth quantum and locations. Providing this information and Geographic Information System (GIS) data can ensure that water companies and other stakeholders can appropriately plan for growth.

Anglian Water have published a useful document outlining how they can support LPAs in preparing Local Plans
https://www.anglianwater.co.uk/siteassets/household/about-us/aw-and-local-plans-sp.pdf

Updating content
In engaging with stakeholders on water-related matters, you should seek to ascertain whether there have been any water-related changes that would suggest a need for alternative approaches to be taken to previously stated approaches. For example, there might be a need for more stringent water efficiency targets since the initial release of a Water Management Resource Plan. Learn more about shared standards in water efficiency for local plans here.

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The Plan and policies should reflect and respond to the evidence gathered, and stakeholder engagement undertaken, as part of previous stages.

Water considerations should be integrated throughout the Plan, not just confined to “water” policies. Planners should consider how all policies could interact with the water environment (directly and indirectly). By using an Integrated Water Management approach, the Plan will help developers to recognise opportunities and ‘easy wins’ for improving the water environment.

Referring to documents such as water company Management Plans (both for Water Resources, and Drainage and Wastewater) and Catchment-based Approach (CaBA) partnership strategy documents when drafting policies will make policies more robust and applicable across a range of water issues.

Strong policies with good consideration to water at this stage will pave the way for positive outcomes later down the line.

The checklists in this section have been split by water disciplines. The checklists also follow a slightly different format to other sections of the toolkit, due to the use of an external supporting document.

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Drafting the Plan and Policies items to consider – Flood Risk	Resource(s)
PP_FR1: Your Local Plan policies on flood risk should reflect the conclusions of the latest Strategic Flood Risk Assessment (SFRA)	**Policy Case Studies**
PP_FR2: Your Local Plan should include strategic policies which seek to manage flood risk from all sources and consider cumulative impacts in, or affecting, local areas susceptible to flooding	**Policy Case Studies**
PP_FR3: Your Local Plan should draw from the latest data to define Flood Zone 3b (functional floodplain) and include policies and show on the policies map areas where water needs to flow or be stored in times of flood	**Policy Case Studies**
PP_FR4: You should have a strong policy to direct inappropriate development away from flood zones	**Advice Notes** Flood Risk 1: Page 3 **Policy Case Studies**
PP_FR5: Your Local Plan should require the application of appropriate site layout and design techniques to allow for maintaining or improving the existing storage and flow of flood waters on site without increasing flood risk elsewhere	**Policy Case Studies**
PP_FR6: Your Local Plan should include policies that ensure new development is planned to avoid increased vulnerability to the range of impacts arising from climate change	**Advice Notes** Flood Risk 2: Page 3 **Policy Case Studies**

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Drafting the Plan and Policies items to consider – Flood Risk	Resource(s)
PP_FR7: Your Local Plan should include policies that encourage multi-functional approaches to manage flood risk, improve biodiversity and reduce urban heat island effects	**Advice Notes** Flood Risk 4: Page 4 **Policy Case Studies**
PP_FR8: Your Local Plan should include policies that encourage natural flood management techniques as part of an integrated approach to flood risk management	**Advice Notes** Flood Risk 3: Page 3 **Policy Case Studies**
PP_FR9: Your Local Plan should safeguard land that is required for current and future flood risk management	**Advice Notes** Flood Risk 3: Page 3 **Policy Case Studies**
PP_FR10: Your Local Plan should ensure that new development does not detrimentally impact upon existing or proposed flood defence structures or systems	N/A
PP_FR11: Your Local Plan should identify areas where there are particular surface water management issues. The Local Plan should include policies and actions aimed at reducing these risks	**Advice Notes** Flood Risk 6: Page 5 **Policy Case Studies**

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Drafting the Plan and Policies items to consider – Flood Risk	Resource(s)
PP_FR12: Your Local plan should include policies that require the use of sustainable drainage systems (SuDS)	**Advice Notes** Flood Risk 5: Page 4 **Policy Case Studies**
PP_FR13: Your Local plan should make provision for the future relocation of vulnerable development and infrastructure if necessary	N/A

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Drafting the Plan and Policies items to consider – Water Resources	Resource(s)
PP_WR1: Your Local Plan should direct development to areas of water surplus. Where not possible appropriate justification and mitigation should be identified	**Advice Notes** Water Resources 1: Page 6 **Policy Case Studies**
PP_WR2: Your Local Plan should include policies which secure the delivery of key water supply infrastructure	**Advice Notes** Water Resources 1: Page 6 **Policy Case Studies**
PP_WR3: Your Local Plan should take into account the availability of water to supply new development (including allocations), particularly in areas of water stress .	**Advice Notes** Water Resources 2: Page 6 **Policy Case Studies**
PP_WR4: Your Local Plan should include policies that require all new homes to minimise internal water use based on local pressures	**Advice Notes** Water Resources 2: Page 6 **Policy Case Studies**
PP_WR5: Your Local Plan should include policies and justification restricting water usage.	**Advice Notes** Water Resources 2: Page 6 **Policy Case Studies**

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Drafting the Plan and Policies items to consider – Water Resources	Resource(s)
PP_WR6: You should include policies to promote green and blue infrastructure	**Advice Notes** Water Resources 3 & 4: Page 7 **Policy Case Studies**
PP_WR7: Your Local Plan should include policies that promote green and blue infrastructure, link to water management, and promote a range of blue spaces and features	**Advice Notes** Water Resources 3 & 4: Page 7 **Policy Case Studies**
PP_WR8: Your Local Plan should include policies requiring the use of Sustainable Drainage Systems (SuDS)	**Advice Notes** Water Resources 4: Page 7 **Policy Case Studies**

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Drafting the Plan and Policies items to consider – Water Quality & Environment	Resource(s)
PP_WQ1: Your Local Plan should include policies that can help reduce the risk of pollution from diffused sources	**Policy Case Studies**
PP_WQ2: Your Local Plan should include policies that help to improve local environmental conditions, such as water quality, taking into account relevant information such as River Basin Management Plans	**Advice Notes** Water Q&E 2: Page 8 **Policy Case Studies**
PP_WQ3: Your Local Plan should include policies that prevent new and existing development from contributing to being put at unacceptable risk from, or being adversely affected by, unacceptable levels of water pollution	**Policy Case Studies**
PP_WQ4: Your Local Plan should include policies that protect and enhance water environments, encouraging the provision of multifunctional benefits	**Advice Notes** Water Q&E 2: Page 8 **Policy Case Studies**
PP_WQ5: Your Local Plan should include policies that ensure new development is planned to reflect the local implications arising from climate change	**Policy Case Studies**

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Drafting the Plan and Policies items to consider – Water Quality & Environment	Resource(s)
PP_WQ6: Your Local Plan should target development to sewered areas to reduce the use of non-mains drainage.	**Policy Case Studies**
PP_WQ7: Your Local Plan should include policies that reflect the water quality priorities outlined in catchment and river basin management plans	**Advice Notes** Water Q&E 2: Page 8 **Policy Case Studies**
PP_WQ8: Your Local Plan and site allocations (particularly employment, commercial and industrial uses) should be informed by the locations of source protection zones and surface water drinking abstraction areas	**Advice Notes** Water Q&E 3: Page 9
PP_WQ9: Your Local Plan should include policies to promote the use of measures to improve water quality, such as sustainable drainage systems (SuDS) schemes, in addition to mitigating flood risk	**Advice Notes** Water Q&E 2: Page 8 Water Q&E 4: Page 9 **Policy Case Studies**

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Drafting the Plan and Policies items to consider – Wastewater	Resource(s)
PP_WW1: Your Local Plan should include policies which prioritise sustainable drainage systems (SuDS) and the management of surface water run off	**Advice Notes** Wastewater 1: Page 10 Wastewater 3: Page 10 **Policy Case Studies**
PP_WW2: Your Local Plan should include policies that promote SuDS as the first method of surface water management	**Advice Notes** Wastewater 1: Page 10 **Policy Case Studies**
PP_WW3: Your Local Plan should include policies that seek to reduce the causes and impacts of flooding through reducing the rate of runoff from brownfield sites	**Policy Case Studies**
PP_WW4: Your Local Plan allocations should be phased to ensure that proper regard can be given to ensuring that wastewater infrastructure can be upgraded	**Advice Notes** Wastewater 5: Page 11 **Policy Case Studies**

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Drafting the Plan and Policies items to consider – Wastewater	Resource(s)
PP_WW5: Your Local Plan and its policies should take a holistic approach to the water environment	**Advice Notes** Wastewater 2: Page 10 **Policy Case Studies**
PP_WW6: Your Local Plan should include policies that promote green infrastructure	**Advice Notes** Wastewater 4: Page 11 **Policy Case Studies**
PP_WW7: Green and blue infrastructure policies in your Local Plan should link to water management and promote a range of blues spaces and features	**Advice Notes** Wastewater 4: Page 11 **Policy Case Studies**
PP_WW8: Your Local Plan should include policies that make sufficient provision for wastewater infrastructure	**Advice Notes** Wastewater 5: Page 11 **Policy Case Studies**

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Guidance: Delivering better water management through the planning system by the Construction industry Research and Information Association (CIRIA)

Further explanation on Integrated Water Management (IWM) and the key characteristics and examples of good local plan policies can be found in CIRIA's Delivering better water management through the planning system (see Part A, Chapters 4 and 5).

Advice Note 1: Drafting the plan and policies

Key considerations in drafting your Local Plan and policies:

- 'Mainstream' the water environment throughout all draft policies within your plan (including but not limited to those concerning transport and movement, environment, housing, design and allocations)
- Clearly link the water policies to evidence / stakeholder engagement inputs and explain this in the supporting text
- Ensure water policies highlight and present ways to address the key water challenges of the area
- Consider how policies will be monitored at an early stage

Advice Note 2: Strategic plan objectives

Seek to maximise synergies and avoid potential conflicts between water policies and your local plan objectives by, for example:

- Including strategic objectives which address key local water issues and challenges, including water stress, wastewater, flooding and water quality, to ensure that these topics are given consideration at a strategic level.
- Emphasising and acknowledging in strategic plan objectives the importance of integrated approaches and measures which deliver multiple benefits (such as sustainable drainage systems (SuDS) supporting green infrastructure, mitigating the impacts of climate change, improving the quality of developments, improving health and wellbeing, mitigating flood risk and improving water quality).

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Advice Note 3: Adopting an integrated approach to water

Identifying the potential synergies and conflicts between (1) the implementation of water sensitive design features like sustainable drainage systems (SuDS), (2) developing green and blue infrastructure, (3) improving water quality, (4) achieving water efficiency and (5) other plan objectives early in the plan and policy development stages. This can be done in workshop or brainstorm sessions, as part of stakeholder engagement, and using relevant plans and evidence on water availability, flood risk, climate change and the water environment (and any other relevant evidence).

Advice Note 4: Integrating water into other parts of the plan and policies

Integrate water issues and disciplines into growth and thematic policies in your Local Plan, not just within the water policies themselves. For example, emphasize and acknowledge the role of Integrated Water Management (IWM) and SuDS in growth policies particularly in relation to supporting green infrastructure, improving water filtration capacity, supporting the replenishment of water resources, managing urban water run-of, mitigating the impacts of climate change and flood risk, improving water quality, but also improving the quality of new developments and health and wellbeing of residents or employees.

Advice Note 5: Monitoring

In relevant planning policy, include criteria for monitoring the implementation of water sensitive design features, including SuDS, in multi-purpose spaces and facilities to identify any challenges, related solutions and good practice examples.

Planning Practice Guidance (PPG); Guidance on how to implement the National Planning Policy Framework (NPPF)

- Water supply, wastewater and water quality pages. The PPG outlines specific considerations to make regarding water supply, wastewater and water quality throughout the planning process.

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Flood risk advice note 1: The sequential risk-based approach

Your plan should carry forward the sequential risk-based approach set out in the National Planning Policy Framework (NPPF). Site Allocations in your plan, informed by the Sequential Test approach, could show the location of each site in relation to flood zones. You should maintain strict criteria for development on flood plains.

Flood risk advice note 2: Current and future flood risk

Ensure that both current and future flood risk is accounted for when screening the suitability of sites. Flood risk should be considered as high priority.

Policies that consider climate change should give considerable weight to flood risk in addition to other climate related impacts like overheating, linking it to relevant flood related policies.

Flood risk advice note 3: Natural flood risk management

Ensure policies encourage natural flood risk management techniques that improve existing storage and that aid in groundwater recharge. Where appropriate, identify opportunities for how they may be implemented at various scales. Suggest considerations for use of Natural Flood Management (NFM) beyond sustainable drainage systems (SuDS) where appropriate.

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Flood risk advice note 4: Green and blue infrastructure

Your Local Plan should include a policy dedicated to blue infrastructure protection and enhancement, including blue spaces and features. If it is more appropriate to contain one policy focused on both green and blue infrastructure, ensure that one is not prioritised over the other by including strong policy provisions specific to blue infrastructure.

Blue infrastructure should be covered in the same manner in your Local Plan as green infrastructure to ensure all environmental aspects are considered and its specific features should be addressed in your Local Plan's growth and thematic policies.

Link green and blue infrastructure enhancement with policies on water management, including flood risk, to encourage the use of multi-functional approaches in development which deliver multiple benefits for water. For example, promote the concept of 'water bodies' and their catchments as described in River Basin Management Plans (RBMPs) in your local plan in order to promote a catchment-based approach, and awareness of the impact of any development on water.

Flood risk advice note 5: Sustainable drainage systems (SuDS) implementation

Your SuDS policy wording should avoid ambiguity and set clear priorities for SuDS implementation. In particular, requirements for SuDS implementation should be made more stringent by clarifying what is deemed not 'practicable' or 'viable'. More innovative opportunities should also be included for including SuDS (e.g., on-street infrastructure such as roundabouts, green roofs on bus shelters).

Your Local Plan should fully reflect the mandatory requirement of SuDS for relevant new developments in the upcoming of Flood and Water Regulations (2010) Schedule 3 amendment. The Act requires mandatory implementation of SuDS for all new developments and removes a new development's automatic legal right to connect surface water drainage to nearby sewage infrastructure.

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Flood risk advice note 6: Surface water management

Your Local Plan should clearly address all sources of flooding, identify areas at risk of different types, and develop actions and policy approaches aimed at reducing these risks. You should ensure there are policies in place to reduce flood and water quality risk in areas that have been identified as those with surface water management issues. Referring to the Surface Water Management Plan (SWMP) can help identify areas with surface water management issues and determine the most effective flood mitigation actions for those areas.

SWMPs are non-statutory plans produced by Lead Local Flood Authorities which outline a preferred surface water management strategy for an area. These plans preceded the introduction of the Flood and Water Management Act 2010; however, they can be useful to inform the Local Plan and planning decisions around surface water flood risk management and can provide an important evidence base for developing local flood risk management strategies.

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Drafting the Plan and Policies Resources– Water Resources

Water Resources Advice Note 1: General

Include strategic objectives and policies that specifically address water resources, including supply and demand, and that consider the cumulative effects of new developments on water resources. These should have specific reference to relevant RWRPs and WRMPs and other ambitions and identify ways to support these through other plans' policies and planned developments. A water resources policy would also ensure that water supply infrastructure can support proposed growth.

Include policy provisions that aim to protect and enhance water environments critical for water availability, mainly chalk rivers and aquifers, to maximise synergies between enhancing the water environment and improving water availability.

Ensure that the relevant planning policies require developers to prioritise achieving water efficiency and the use of water sensitive design principles and features, including sustainable drainage systems (SuDS), over other design priorities.

Consider long-term implications of climate change on water resources and draw links between climate change and water resource management by cross-referencing relevant policies.

Water resources advice note 2: Water efficiency targets

Use evidence from a Water Cycle Study (WCS) or equivalent evidence to support the inclusion of policies requiring tighter water efficiency standards in line with the alternative building regulations standard (of 110 litres/person/day in areas of serious water stress), or where there is evidence, consider requiring tighter efficiency standards such as to 80 litres/person/day. Learn more about shared standards in water efficiency for local plans here.

If this is not possible, provide a set of evaluation criteria for what is deemed not 'practicable', 'economically viable', or 'technically viable'.

Introduce policies that require any improvements and renovations to existing buildings (which require planning permission) to simultaneously improve water efficiency.

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Water resources advice note 3: Promoting Blue Infrastructure

Your Local Plan should include a policy dedicated to blue infrastructure protection and enhancement, including blue spaces and features. If it is more appropriate to contain one policy focused on both green and blue infrastructure, ensure that one is not prioritised over the other by including strong policy provisions specific to blue infrastructure.

Blue infrastructure should be covered in the same manner in your Local Plan as green infrastructure to ensure all environmental aspects are considered and its specific features should be addressed in your Local Plan's growth and thematic policies.

Link green and blue infrastructure enhancement with policies on water management, including water resources, to encourage the use of multi-functional approaches in development which deliver multiple benefits for water. For example, promote the concept of 'water bodies' and their catchments as described in River Basin Management Plans (RBMPs) in your local plan in order to promote a catchment-based approach, and awareness of the impact of any development on water.

Water resources advice note 4: Sustainable drainage systems (SuDS) implementation

Your SuDS policy wording should avoid ambiguity and set clear priorities for SuDS implementation. In particular, requirements for SuDS implementation should be made more stringent by clarifying what is deemed not 'practicable' or 'viable'. This information could be provided in supporting text or supplementary documents. More innovative opportunities should also be included for including SuDS (e.g., on-street infrastructure such as roundabouts, green roofs on bus shelters).

Your Local Plan should fully reflect the mandatory requirement of SuDS for new developments in the upcoming of Flood and Water Regulations (2010) Schedule 3 amendment. The Act requires mandatory implementation of SuDS for all new developments and removes a new development's automatic legal right to connect surface water drainage to nearby sewage infrastructure.

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Water Environment and Water Quality resources advice note 1: General

To determine which policy approach is needed to address poor performing water bodies, a targeted approach should be made based on the specific problems of specific water bodies; the data for which can be gained from the evidence section. In general, Integrated Water Management (IWM) approaches offer a 'catch-all' solution for improving overall status; detail on this is provided by the Construction Industry Research and Information Association in Delivering better water management through the planning system.

Water Environment and Water quality advice note 2: Protecting and enhancing local environmental conditions

By using the IWM approach, you will automatically be adopting multi-functional measures that will help to improve water quality and water environments. Ensure your Local Plan includes links between policies (through cross-referencing) where the enhancement of water environments is tied to the provision of multi-functional benefits (including social and economic ones).

Your Local Plan should contain policies requiring development to not only protect water quality and the water environment, but to enhance them. Additionally, ensure ecologically sensitive and critical water environments (i.e. chalk rivers) are further protected through policies which promote their protection and enhancement, mitigate pollution impacts, and reduce demand for water (i.e. by increasing water efficiency). This could be achieved by linking policies related to the water environment with policies related to water efficiency and water quality.

Ensure the local environmental objectives of the River Basin Management Plans (RBMPs) are reflected within your Local Plan, including within site allocation policies. The RBMP can provide information on priorities for the water environment, where environmental enhancement measures are needed and where constraints may need to be introduced.

Within the relevant policy, emphasize the need for developers to use water sensitive design features which are multi-functional to optimise space and reduce spatial conflicts. Where spatial limitations are high, consider requiring development to incorporate small-scale, space efficient features, such as small-scale sustainable drainage systems (SuDS).

Update Supplementary planning documents (SPDs) regularly to reflect recent water quality objectives and to encompass any important changes to the water environment.

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Resources – Water Environment and Quality

Water Environment and Water quality advice note 3: Source Protection Zones (SPZs) and drinking water abstraction areas

Your Local Plan should contain policies delineating SPZs and surface water drinking abstraction areas (in text and potentially within the policies map) to ensure that development does not pose a risk to drinking water abstraction areas. Clearly define these zones within policies and ensure that new development does not pose a risk to groundwater used for abstraction, particularly for employment, commercial and industrial developments.

Water Environment and Water quality advice note 4: Sustainable drainage systems (SuDS) implementation

Your SuDS policy wording should avoid ambiguity and set clear priorities for SuDS implementation. In particular, requirements for SuDS implementation should be made more stringent by clarifying what is deemed not ‘practicable’ or ‘viable’. More innovative opportunities should also be included for including SuDS (e.g., on-street infrastructure such as roundabouts, green roofs on bus shelters). Ensure the proposed policy recognises the benefits of SuDS for run-off pollution control and ensures that appropriate pollution measures are put in place.

Your Local Plan should fully reflect the mandatory requirement of SuDS for new developments in the upcoming of Flood and Water Regulations (2010) Schedule 3 amendment. The Act requires mandatory implementation of SuDS for all new developments and removes a new development's automatic legal right to connect surface water drainage to nearby sewage infrastructure.

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Wastewater advice note 1: Sustainable drainage systems (SuDS) implementation

Your SuDS policy wording should avoid ambiguity and set clear priorities for SuDS implementation. In particular, requirements for SuDS implementation should be made more stringent by clarifying what is deemed not ‘practicable’ or ‘viable’. More innovative opportunities should also be included for including SuDS (e.g., on-street infrastructure such as roundabouts, green roofs on bus shelters). Ensure the proposed policy recognises the benefits of SuDS for run-off pollution control and ensures that appropriate pollution measures are put in place.

Your Local Plan should fully reflect the mandatory requirement of SuDS for new developments in the upcoming of Flood and Water Regulations (2010) Schedule 3 amendment. The Act requires mandatory implementation of SuDS for all new developments and removes a new development's automatic legal right to connect surface water drainage to nearby sewage infrastructure.

Wastewater advice note 2: Taking a holistic approach

In the relevant planning policies, prioritise water sensitive design and nature-based solutions for water management and climate change adaptation, in order to deliver multiple benefits and meet multiple objectives. This could also be addressed by recognising these synergies within the strategic objectives on climate change adaptation.

Wastewater advice note 3: Surface water management

During Local Plan development, you should refer to a Surface Water Management Plan (SWMP), produced by the relevant Lead Local Flood Authority, to ensure planning and site allocation policies clearly identify areas with surface water management issues. Furthermore, the SWMP can be used to develop policy approaches and make planning decisions aimed at reducing surface water management risks, importantly pollution and flooding. To ensure effective implementation of actions to mitigate against these issues, your Local Plan should include the implementation of an integrated and catchment-based water management approach.

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Wastewater advice note 4: Promoting Blue Infrastructure

Your Local Plan should include a policy dedicated to blue infrastructure protection and enhancement, including blue spaces and features. If it is more appropriate to contain one policy focused on both green and blue infrastructure, ensure that one is not prioritised over the other by including strong policy provisions specific to blue infrastructure.

Blue infrastructure should be covered in the same manner in your Local Plan as green infrastructure to ensure all environmental aspects are considered and its specific features should be addressed in the Local Plan's growth and thematic policies.

Link green and blue infrastructure enhancement with policies on water management, including wastewater, to encourage the use of multi-functional approaches in development which deliver multiple benefits for water. For example, promote the concept of 'water bodies' and their catchments as described in River Basin Management Plans (RBMPs) in your local plan in order to promote a catchment-based approach, and awareness of the impact of any development on water.

Wastewater advice note 5: Water infrastructure

To assure adequate wastewater management it is paramount that your local plan includes strategic objectives and/or policies specifically addressing wastewater. These should ensure the sufficient provision of wastewater infrastructure and identify any upgrades needed. Additional actions could include identifying and safeguarding the land needed for upgrades and supporting development of best available techniques and technologies.

There should be continuous and meaningful engagement with water companies during all policy development stages, using the evidence of the Water Cycle, Integrated Water Management and other studies (such as the Infrastructure Delivery Plan) is recommended to ensure that the plan enables and supports the (future) wastewater infrastructure investments and upgrades.

Ensure that allocation policies in your local plan refer to wastewater infrastructure, including phasing of allocation policies and timescales needed for wastewater infrastructure provision and upgrade.

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Flood Risk Directives	Example policies									
	Cambridge City - 31: IWM and the water cycle	Lambeth - EN5: Flood Risk	Peterborough - LP32: Flood and Water Man.	South Camb. - CC/9: Managing Flood Risk	South Camb. - CC/8: Sustainable Drainage	Cambridge City - 32: Flood risk	West Oxfordshire -EH7: Flood risk	Wealden - CC7: Managing Flood Risk	Watford - NE9.3 Blue Infrastructure Network	Milton Keynes - FR2: SuDS and Int. FRM
PP_FR1: SFRA		●						●		
PP_FR2: All sources of flooding		●								
PP_FR3: Floodplain		●						●		
PP_FR4: Inappropriate development		●								
PP_FR5: Site layout and design		●								
PP_FR6: Climate change		●	●	●		●		●		●
PP_FR7: Multi-functional approaches	●						●			●
PP_FR8: Natural flood management	●							●	●	
PP_FR9: Safeguarding land							●			
PP_FR10: Flood defences										
PP_FR11: Surface water management										
PP_FR12: SuDS	●	●	●		●		●			●
PP_FR13: Relocation										

See the Policy case studies in the separate document here.

The policy case studies provide examples of “what good policy could look like”. Clearly, the policy wording required for your Local Authority area will be unique – you should reference specific rivers and local water assets by name and also highlight and present ways to address the key water challenges of your area. However, the following example policies demonstrate the type of wording and focus that could be replicated and is intended to help provide ideas for your own specifically worded policy.

The matrix on the left indicates which of the example policies are most relevant to which "items to consider" included in the toolkit under the four water disciplines (flood risk, water resources, water quality and environment, and wastewater).

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Water Resources / Directives	South Cambs - Policy CC/7: Water Quality	Camb. City - Policy 31: IWM & water cycle	London - Policy SI 5: Water infrastructure	Central Lincs - Policy S12: Water Eff. &. Man.	Peterboro. - Policy LP32: Flood & Water Man.	Watford – Policy NE9.3: Blue Infra. Network	Peterborough - Policy LP22: GI Network	Milton Keynes – Policy FR2: SuDS & Int. FRM	Wealden - Policy CC6 Water Efficiency
	Example policies								
PP_WR1: Water surplus					●				
PP_WR2: Water supply infrastructure	●		●						
PP_WR3: Availability of water		●							
PP_WR4: Internal water use			●	●	●				●
PP_WR5: Restricting water usage			●	●	●				●
PP_WR6: Green and blue infrastructure						●	●	●	
PP_WR7: Water man. and blues space		●		●		●	●	●	
PP_WR8: SuDS		●			●			●	

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Drafting the Plan and Policies - Resources

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Water Environment and Water quality / Directives	Example policies: Cambridge City - 31: IWM & the water cycle	S. Cambs - Policy CC/7: Water Quality	Peterboro. - Policy LP32: Flood and WM	Milton Keynes - Policy FR3: Watercourses	Aylesbury – Policy NE2: River corridors	Watford - NE9.3: Blue Infrastructure Network	Peterborough - Policy LP22: GI Network	Milton Keynes - FR2: SuDS and Int. FRM	Wealden – Policy: NE13 Water env. & Infra.
PP_WQ1: Diffused sources	●	●				●			●
PP_WQ2: Local environmental conditions	●	●	●	●	●	●			●
PP_WQ3: Water pollution	●	●	●	●		●			●
PP_WQ4: Multifunctional benefits	●		●	●	●	●	●	●	●
PP_WQ5: Climate change								●	
PP_WQ6: Non-mains drainage									
PP_WQ7: Water quality priorities		●				●			●
PP_WQ8: SPZ and abstraction areas									●
PP_WQ9: Improving water quality / SuDS	●	●				●	●	●	●

See the Policy case studies technical note in the separate document here.

The policy case studies provide examples of “what good policy could look like”. Clearly, the policy wording required for your Local Authority area will be unique – you should reference specific rivers and local water assets by name and also highlight and present ways to address the key water challenges of your area. However, the following example policies demonstrate the type of wording and focus that could be replicated and is intended to help provide ideas for your own specifically worded policy.

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Wastewater Directives	Example policies S. Cambs - Policy CC/7: Water Quality	Cambridge City - 31: IWM and the water	Watford - NE9.3: Blue Infrastructure Network	Peterboro. - Policy LP22: GI network	Milton Keynes - Policy FR2: SuDS & IWM / watercourses	Wealden – Policy: NE13 Water env. & Infra.
PP_WW1: SuDS / surface water run off	●	●			●	
PP_WW2: SuDS	●				●	
PP_WW3: Runoff from brownfield sites						
PP_WW4: Wastewater infrastructure	●					●
PP_WW5: Holistic approach	●	●	●	●	●	●
PP_WW6: Green infrastructure		●	●	●		
PP_WW7: Green and blue infrastructure		●	●			
PP_WW8: Wastewater infrastructure provision	●					●

See the Policy case studies in the separate document here.

The policy case studies provide examples of “what good policy could look like”. Clearly, the policy wording required for your Local Authority area will be unique – you should reference specific rivers and local water assets by name and also highlight and present ways to address the key water challenges of your area. However, the following example policies demonstrate the type of wording and focus that could be replicated and is intended to help provide ideas for your own specifically worded policy.

The matrix on the left indicates which of the example policies are most relevant to which "items to consider" included in the toolkit under the four water disciplines (flood risk, water resources, water quality and environment, and wastewater).

Examination

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Once you have finished preparing and consulting on your Local Plan it must be sent to the Secretary of State who will appoint an Inspector to carry out an independent examination. The examination is overseen by the Planning Inspectorate. The examination will consider whether the plan has been prepared in accordance with legal and procedural requirements, and whether it is considered sound. The National Planning Policy Framework (NPPF) explains that a Local Plan can be judged sound if it has been:

- **Positively prepared**
- **Justified**
- **Effective**
- **Consistent with national policy**

Preparation for the examination should begin soon after the closure of the period in which representations are invited on the Regulation 19 Submission Local Plan. This preparation involves assessing the extent to which water-related matters are likely to feature in the plan's examination, and who will need to engage with water-related enquiries should they arise. The presence of water across the hearings schedule will need to be monitored to identify whether water will feature as a matter, issue or question. These terms are described through the Planning Inspectorate's Procedure Guide for Local Plan Examinations.

Examination Statements of Common Ground might be needed where outstanding water-related issues exist. These statements can be helpful to the Inspector and will help to make the examination run more efficiently. Guidance for preparing these statements is outlined through the Planning Advisory Service's Local Plan Route Mapper.

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Examination items to consider	Resource(s)
EX1: In advance of the examination, you should reflect upon the type of water-related issues that might arise as the Local Plan is examined and identify who will be best placed to respond to any questions or concerns arising.	Page 1
EX2: You should review the representations that have been made to the Regulation 19 submission plan and identify whether any modifications need to be prepared. There should be appropriate engagement with relevant stakeholders.	N/A
EX3: You should review the Inspector's initial list of questions, and their subsequent 'Matters, Issues and Questions', to identify whether any water-related issues have been identified.	Page 1
EX4: You should check whether water-related stakeholders submitted representations to the Regulation 19 Local Plan, and whether they have registered to attend the Examination. You should seek to encourage the engagement of water-related stakeholders whether their involvement is considered important or desirable.	See resources for engaging with stakeholders
EX5: You should consider whether Examination Statements of Common Ground are necessary to respond to identified matters of concern. Early engagement should be had with potential signatories to ensure there is plenty of time for statements to be prepared, reviewed and approved.	N/A
EX6: You should ensure that relevant Officers / Consultants are available to review, and fact-check, the Inspector's report.	N/A

Examination - Resources

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Examination Resources

Matters, Issues and Questions

The types of issues that might arise at examination will be directly related to the evidence and polices developed under the previous sections of the toolkit.

Section F of the PAS "Local Plan Route Mapper" has some useful information, specifically Paragraph 118:
"When responding to 'Matters, Issues and Questions' received from the Inspector, we would strongly advise that you develop a standard template and that each question or sub-question is set out and responded to separately. It is really important to keep these succinct and to the point. Understand the question being asked, and answer it right at the start. Hearing Statements help an Inspector to find the information needed so make sure that you can link your response back to the Plan (including associated supporting text), the evidence base or other plans and documents (including the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG)) and include a signpost to the document reference, paragraph number(s) and page number(s). There is an enormous amount of information that an Inspector has to review and absorb so it is important that you provide as much help as possible to ensure that they can easily access the relevant information and evidence that you are using to support your response. You should not include anything that cannot be substantiated.".

Linking to the evidence presented in the Catchment Data Explorer pages could be useful to achieve this.

Monitoring and Review

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Once adopted, you must monitor the effectiveness of the policies in the Local Plan. National Planning Practice Guidance states that you must publish information, at least annually, that shows progress with local plan preparation, and reports on any activity relating to the duty to cooperate. You also need to report on any information that has been collected which relates to the indicators of the plan and highlight any policies that you feel are not being properly implemented. An Authority Monitoring Report can be a useful tool for presenting this information.

Monitoring is an essential part of the planning process, providing an opportunity to review the performance of planning policies in the context of set objectives and indicators. In short, the Local Plan needs to describe what success looks like, and how this can be measured. Appropriate, up to date data will be needed to inform monitoring activities. Early consideration should be given to potential data sources; certain data can be extracted from the implementation of policy through development management.

Objectives, indicators and targets need to be clearly defined. Potential indicators might focus on:

- The number of planning permissions granted that are contrary to your guidance on sustainable drainage.
- The number of planning permissions granted that are contrary to the advice of the Environment Agency (EA) on water quality or flood risk ground
- The number of planning permissions that reduce surface water flows into sewers.
- The number of schemes that demonstrate 100% with your policy on water efficiency.

Triggers for initiating a policy review also need to be clearly articulated.

Where failings are identified, early thought will be required to identify potential remedies, including how the policy might be re-drafted in the next iteration of your Local Plan.

The Planning Advisory Service has produced guidance on monitoring indicators which gives useful advice to monitoring and review activities.

The data presented through the Catchment-based Approach (CaBA) Data Hub contains a wide range of water related datasets relevant to catchment management.

The EA Water Quality Data Archive provides potentially useful indicators for monitoring and is updated regularly. The EA can also be approached directly to provide the information needed to help you in monitoring your Local Plan.


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Monitoring and Review items to consider	Resource(s)
MR1: You should ensure that each water-related policy or proposal has a defined target, or targets, to articulate what needs to be achieved. Indicators should be created alongside these targets to ensure that progress can be tracked. Progress against these indicators will inform how the Local Plan is performing. Targets and indicators should be clearly worded.	Page 1
MR2: You should be clear on the type of data that is necessary to assess indicator performance, and where this data can be found (e.g. through the information to support an application).	Page 2
MR3: You should clearly define triggers to initiate appropriate policy reviews.	Page 2
MR4: Your policy planning team should regularly engage with staff in development management / technical services to ensure that expectations surrounding data collection and performance are reasonable.	Page 2

Monitoring and Review - Checklist

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Monitoring and Review items to consider	Resource(s)
MR5: You should engage with relevant stakeholders to explore whether they collect, or hold, relevant data to support monitoring activity.	Page 2
MR6: You should track, and regularly report, on the changes that might have occurred since the Local Plan was adopted. These changes could comprise revisions to national planning or water policy, appeal decisions, the activity of adjoining authorities (or neighbourhood planning qualifying bodies), significant local events (such as local floods) or significant changes to the evidence-base.	Page 3
MR7: You should seek to discuss the outcomes of monitoring activity with relevant water-related stakeholders to gather ongoing intelligence about how implementation can be enhanced, and how adopted policy should be reviewed in response.	Page 3
MR8: You should ensure that appropriate resource is available to support monitoring activity, and that risks to monitoring activity are properly identified.	Page 3

Monitoring and Review - Resources

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Monitoring and Review Resources

MR1:
Once adopted, you must monitor the effectiveness of the policies and proposals included within your Local Plan. National Planning Practice Guidance (PPG) states how you must publish information, at least annually, that shows progress with local plan preparation, and reports on any activity relating to the duty to cooperate. You also need to report on any information you have collected which relates to the indicators of the plan, and highlight any policies that you feel are not being properly implemented. This information should be presented in an Authority Monitoring Report.

Monitoring is an essential part of the planning process, providing an opportunity to review the performance of planning policies in the context of set objectives and indicators. In short, your Local Plan needs to describe what success looks like, and how this can be measured. Appropriate, up to date data will be needed to inform monitoring activities. Objectives, targets and indicators need to be clearly articulated. Potential indicators for the water environment might focus on:

- The number of planning permissions granted that are contrary to your guidance on sustainable drainage.
- The number of planning permissions granted contrary to Environment Agency (EA) advice on water quality or flood risk grounds after failing the sequential and/or exceptions test.
- The number of planning permissions that reduce surface water flows into sewers.
- The proportion of watercourses classified as good or very good in terms of biological or chemical quality.
- The average water consumption per household.
- The number of schemes that demonstrate 100% accordance with your policy on water efficiency.
- The number of completed developments which incorporate water conservation measures, by type of measure.
- Net loss or gain (m^2) in the area of permeable surfacing, as a result of completed new developments.

The Planning Advisory Service has produced guidance on monitoring indicators which gives useful advice to monitoring and review activities.

The EA Water Quality Data Archive provides potentially useful indicators for monitoring and is updated regularly. The EA can also be approached directly to provide the information needed to support your monitoring activities.

LPAs may also approach the relevant water company to obtain smart metering data.

Monitoring and Review - Resources

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Monitoring and Review Resources

MR2: Your Local Plan should clearly set out in the monitoring section what data will be collected to assess indicator performance. Relevant data is likely to come from approved/refused application monitoring, conditions monitoring and external data sets. For example, the data presented through the Catchment-based Approach (CaBA) Data Hub contains a wide range of water related datasets relevant to catchment management.

MR3: Triggers for initiating a policy review also need to be clearly articulated. For example, where if the % of applications granted that are contrary to your guidance on sustainable drainage crosses a threshold this could trigger a review. Or where the proportion of watercourses classified as good or very good in terms of biological or chemical quality crosses a threshold this could trigger a review. Where failings are identified, early thought will be required to identify potential remedies, including how the policy might be re-drafted in the next iteration of the Local Plan.

MR4: Planning policy staff should discuss monitoring activity with colleagues in development management to assess the validity of targets and indicators and to assess the robustness of data collection methods. These conversations should happen early in the plan production process and should be documented.

MR5: Planning policy staff should explore the type of data that might be available to support monitoring activity by engaging with key water-related stakeholders, including the Environment Agency, the relevant Lead Local Flood Authority, and the associated water and drainage companies. In selecting appropriate data sets, you must be assured that relevant data will be collected for the duration of your Local Plan.

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MR6: You should report back on potential changes to your Local Plan's context via your Authority Monitoring Report. This reporting will help to gauge how Local Plan policies might need to change at the next review period, but it might also help to draw out interim actions too (such as providing additional guidance).

MR7: You should ensure that water-related stakeholders are aware you have published an Authority Monitoring Report. Key conclusions relating to water should be communicated to these same groups. Potential solutions should be discussed where problems have been identified.

MR8: Appropriate resource should be secured to maintain monitoring activity. Obtaining data from water-related stakeholders might help to save certain costs.

Development Management

Pre-Application

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This section of the toolkit covers the process of reviewing planning applications. It covers all aspects of development management, from initial discussions about a proposal, to the determination of an application. Each button above will take you to the relevant section of the toolkit to access the checklist of items to consider for that stage and associated resources. Although some principles are transferable, such as the need to engage, the toolkit does not relate to environmental permitting activities.

Pre-Application

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Prior to the submission of a planning application, you are strongly encouraged to guide developers and applicants through pre-application enquiries and discussions.

Early consideration of the water environment can ensure that water is appropriately considered to minimise unintended consequences and ensure opportunities to enhance the water environment are maximised. There is more scope to significantly alter a development design and approach during pre-application rather than after submission. This is particularly important for large developments or those altering or draining to a water course.

New homes in Cambridgeshire

Pre-Application - Checklist

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Flood Risk | Water Resources | Water Quality and Environment | Wastewater

Pre-application items to consider - General	Resource(s)
PA1: You should send the printable checklist to applicants (See resources). The document sets out this checklist of items to consider from the toolkit in a manner for the applicant to respond to.	Page 1
PA2: Check that the applicant has identified and engaged with relevant water stakeholders and documented their engagement activities	Page 1
PA3: Check whether the applicant has sought formal pre-application advice from key water stakeholders including the Environment Agency and the Lead Local Flood Authority	Page 1
PA4: If a Planning Performance Agreement is being established, water should be considered as part of this	Page 1

Pre-Application - Checklist

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Pre-application items to consider - Flood Risk	Resource(s)
PA_FR1: Check that the applicant has identified if the development site is: • in flood zone 1, 2 or 3 • within 20 metres of a main river or a flood defence • in a water storage area	Page 2
PA_FR2: Check that the applicant has reviewed your Strategic Flood Risk Assessment to find out if the development is: • in flood zone 1 now but will be at risk of flooding from rivers or the sea during its lifetime • at risk from any other source of flooding or it will be during its lifetime • in flood zone 3b (functional floodplain)	Page 2
PA_FR3: Check that the applicant has considered if the proposal requires a Flood Risk Assessment (as per footnote 63 of the National Planning Policy Framework (NPPF)	Page 2
PA_FR4: Check that the applicant has considered if the sequential test applies	Page 3
PA_FR5: If the sequential test can be satisfied check that the applicant has considered if the exception test is also needed	Page 3
PA_FR6: Check that the applicant has confirmed with you and the Lead Local Flood Authorities (LLFA) what information on sustainable drainage systems (SuDS) is required	Page 3

Pre-Application - Checklist

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Pre-application items to consider - Water Resources	Resource(s)
PA_WR1: Check that the applicant has considered how a sufficient water supply for the development will be provided.	Page 4

Pre-application items to consider - Water Quality and Environment	Resource(s)
PA_WQ1: Check that the applicant has considered the need to avoid water body status *deterioration* in their proposal	Page 5
PA_WQ2: You should flag to the applicant the potential for including features in the scheme which would lead to *improvements* to the water environment and contribute to positive outcomes *(You should expect all proposals to include at least some of these features)* These might include: • Landscaping, reedbeds, buffer zones or ground investigation connections (which benefit the biological quality of rivers). • Reduced physical modifications, creating more natural drainage, incorporating permeable areas, introducing water efficiency measures such as greywater systems (which benefit hydromorphology). • Sustainable drainage systems (SuDS), drainage plans and remediation of contaminated land (which could reduce pollution to improve physico-chemical quality and chemical quality).	Page 5 Page 6
PA_WQ3: Check that the applicant has assessed the extent to which water bodies are likely to be affected by the proposed scheme • The applicant should identify which water bodies could be affected and their current status under the Water Framework Directive (WFD) (and causes) • The applicant should consider if the application needs to be accompanied by a WFD assessment? *If no;* The proposal should include remedial actions to mitigate any negative effects on water bodies	Page 7

Pre-Application - Checklist

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Flood Risk | Water Resources | Water Quality and Environment | **Wastewater**

Pre-application items to consider - Wastewater	Resource(s)
PA_WW1: If the application requires a drainage plan be drawn up, you should request one	Page 8
PA_WW2: You should flag to the applicant the upcoming mandatory nature of sustainable drainage systems (SuDS) in England and the future need to obtain approval from the from SuDS Approval Body (SAB). You should make the applicant aware that pre-application advice can also be sought from the relevant SAB	Page 8
PA_WW3: Check that the applicant has identified an appropriate wastewater solution and seek early assurance that this will be acceptable	Page 8

Pre-Application - Resources

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Pre-application Resources - General

Water pre-application checklist
Please click here to access a checklist to send to applicants. This checklist aims to save you time by listing common issues to be considered. It can be tailored as needed for use as a letter, email or 'agenda' for discussion with the applicant at a pre-application meeting.

Key Stakeholders
The applicant should identify key water stakeholders relevant to their application. These are likely to include the Environment Agency (EA), the Lead Local Flood Authorities (LLFA), and the relevant water company(ies). (See Stakeholder Engagement section for further suggestions). When engaging with key water stakeholders, the applicant should provide sufficient information on the nature of their proposals to enable stakeholders to provide adequate feedback.

The applicant should reference these pre-application discussions and their outcomes in a document to be submitted with the application. This could be a statement of consultation or within a technical report on water or the planning statement.

Pre-Application Advice
Pre-application advice from key water stakeholders should be sought for **all major developments**. Consultation with the EA is particularly important for development in a flood zone or close to a river, for developments that may create pollution in a sensitive setting or for development on a site where historic contamination could be present. Consultation with the LLFA is important on development sites that have a current risk of flooding or have the potential to increase local flood risk. There may be a charge for pre-application advice from key stakeholders.

Planning Performance Agreements
A planning performance agreement is a project management tool which you can use to agree timescales, actions and resources for handling particular applications with an applicant. It should cover the pre-application and application stages but may also extend through to the post-application stage. If water is likely to be a significant consideration in an application, it may be worth approaching key water stakeholders to be part of the agreement to secure their engagement at key stages of the development process.

Pre-Application - Resources

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Pre-application Resources - Flood Risk

Checking Development Proposals for Flood Risk
Applicants should use the flood map for England to assess if their site is within a flood zone or within close proximity to a main river or flood defence. They should also check if it is within a water storage area. This information should also be available from the Local Authority's Strategic Flood Risk Assessment.

Strategic Flood Risk Assessments (SFRAs)
Your SFRA should be accessible from the planning policy / forward planning section of the Council's website. It is a key evidence document produced to support the Local Plan and should be publicly available.

Site-Specific Flood Risk Assessments
Flood risk assessments are required for most developments within one of the flood zones.
This includes developments:

- in flood zone 2 or 3 including minor developments and change of use
- more than 1 hectare (ha) in flood zone 1
- less than 1 ha in flood zone 1, including a change of use in development type to a more vulnerable class (for example from commercial to residential), where they could be affected by sources of flooding other than rivers and the sea (for example surface water drains, reservoirs)
- in an area within flood zone 1 which has critical drainage problems as notified by the Environment Agency

Detailed guidance on requirements for FRA are contained in Preparing a flood risk assessment: standing advice - GOV.UK (www.gov.uk). You may find it helpful to agree with your lead local flood authority the circumstances and locations where site specific flood risk assessments will always be required due to surface water or other local flood risks, lead local flood authority advice can be sought on other planning applications which raise surface water or other local flood risk issues.

Pre-Application - Resources

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Pre-application Resources - Flood Risk

Sequential Risk-Based Approach
The aim of the sequential test (ST) is consider all sources of flood risk and the current and future impacts of climate change – to avoid, where possible, flood risk to people and property. Paragraph 175 of the NPPF clarifies when the test applies and doesn't apply. Local Planning Authorities (LPAs) decide if the ST' considerations have been satisfied. The Environment Agency provides appropriate advice on fluvial and tidal flooding to help LPAs reach a decision.

Exception Test
The Exception Test requires two additional elements to be satisfied (as set out in paragraph 178 of the National Planning Policy Framework (NPPF)) before allowing development to be permitted in situations where suitable sites at lower risk of flooding are not available following application of the sequential test. The need for the exception test will depend on the vulnerability of the site and the development proposed. The applicant should check the site area and development classification in conjunction with the vulnerability classification and its compatibility with the site's flood zone(s). The exception test should be demonstrated through the site-specific flood risk assessment (see previous page).

Sustainable drainage systems (SuDS)
Due to upcoming requirements to seek approval from SuDS Approval Bodies (SABs) – following the implementation of Schedule 3 of the Flood and Water Management act (2010); a more detailed level of design earlier in the planning and approval process than has been completed previously is likely needed; provided as part of a 'combined application' alongside the planning application. It is advisable for applicants and their consultants to consider early on the maintenance requirements for their SuDS scheme and potential routes for adoption. Early engagement with you and the Lead Local Flood Authorities (LLFA) is important.
The Susdrain website has many useful materials that the applicant could be signposted to e.g. National Standards for Sustainable Drainage. However, with emerging policy on this topic, it is important to ensure that advice is still relevant before applying it.
The Government has guidance on drainage plans, as well as wider information on prevention of pollution into water here: Pollution prevention for businesses.

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Water Supply Evidence

Water supply is unlikely to be a consideration for most planning applications. Exceptions might include:

- large developments not identified in your Local Plan that are likely to require a large amount of water; and/or
- significant works required to connect the water supply; and/ or
- where your plan requires enhanced water efficiency in new developments as part of a strategy to manage water demand locally and help deliver new development.

Where evidence to support water supply is needed, an applicant should engage with the relevant water company.

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Avoiding Water Body Deterioration and Facilitating Improvements

River Basin Management Plans (RBMP) Map Data Explorer can help determine which water bodies will be affected by a proposed scheme. Using the "Classification" tab, and the sub-tabs underneath, the ecological and chemical status of waterbodies in the area, including rivers, canals, lakes, surface and groundwater can be checked. The specific objective (for 2027) for that waterbody can also be viewed using the "Objectives" tab. Clicking a waterbody on the map then opens the Catchment Data Explorer pages where more detail can be obtained for that waterbody, including catchment area.

Reasons for Not Achieving Good (RNAG) and Reasons for Deterioration (RFD) are outlined in tables on the Catchment Data Explorer pages at the water body scale; to navigate to these pages, go through the Management Catchment scale, clicking through each relevant catchment area until you find the relevant water body. Alternatively, RNAG data and RFD data can be downloaded from data.gov.uk, including map data and filterable spreadsheet data.

For information on potential Integrated Water Management (IWM) solutions that development can implement, see the IWM pages of this toolkit. Additionally, the Catchment-based Approach (CaBA) Peter Bide document "Urban Partnerships: Delivering sustainable urban water management through local action" is a useful resource.

The information in the image on the next page is from the CaBA website's "Engaging with the Water Framework Directive" training document. The accompanying guidance document also describes the effect of Development on the water environment in Section 5.2, and potential interventions that could contribute to positive Water Framework Directive (WFD) outcomes.

Page 28 and 29 of "Advice note on the Water Framework Directive for Local Authorities across the Midlands" also have useful information on specific sustainable drainage systems (SuDS) techniques. Note the document was produced in 2012 and for the Midlands, but is still useful and mostly relevant (some SuDS policy information may be outdated).

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How can planning contribute to Water Framework Directive Targets for improving water body status?

Biological quality	Hydromorphology	Specific pollutants, physico-chemical quality and chemical quality
Are there improvements which could be made to benefit aquatic flora and fauna? For example. Is there an opportunity for habitat creation or enhancement? What about protection of existing biodiversity – have appropriate surveys and impact assessments been carried out? ✓ Include landscaping with native, locally appropriate species ✓ Encourage use of reedbeds to improve water quality ✓ Create buffer zones to protect habitat areas ✓ Require green infrastructure connections	Can channel improvements be made, for example to revert to a more natural structure? Is it feasible to reduce culverting, make changes to flow rates or find better flood storage options such as floodplain reconnection or upstream storage? ✓ Reduce physical modifications ✓ Create more natural drainage ✓ Incorporate permeable areas ✓ Introduce water efficiency measures e.g. greywater systems	How can the development reduce harmful inputs of sediments, chemicals and other compounds? Can solutions be found to reduce or eliminate inputs from farming, industry, residential and/or commercial operations? ✓ Use SuDs to reduce run off volumes and improve quality, also remove silt ✓ Request a drainage plan from applicant ✓ Require remediation of contaminated land

See CaBA website's "Engaging with the Water Framework Directive" training document.

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Water Framework Directive Assessments (WFDa)

Any development scheme which has potential to have a negative effect on the qualitative or quantitative status of any waterbody is likely to require a WFDa. The purpose of the assessment is to determine whether there are any elements of the proposed scheme which could have a detrimental effect on the current quality of any waterbody. There must be no permanent, unmitigated effects which cause deterioration in the current status of any surface-water or groundwater body. You can find a 'Planning Checklist' for whether a WFDa applies to your application in Appendix B of 'Engaging with the Water Framework Directive: Guidance for Local Authorities' (Environment Agency / Dorset Wildlife Trust / Nottinghamshire Wildlife Trust).

For Nationally Significant Infrastructure Projects (NSIP), this is an advice note issued by the Planning Inspectorate which outlines some expectations of a robust WFDa. (See Section 4).

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Connecting Sewerage

It is expected that most applications will connect into the public sewerage system. It may be that conditions are required to ensure sufficient capacity is available in the sewerage system prior to construction. The National Planning Practice Guidance and Building Regulations Approved Document H give a hierarchy of drainage options that must be considered and discounted in the following order:

1. Connection to the public sewer
2. Package sewage treatment plant (which can be offered to the Sewerage Undertaker for adoption)
3. Septic Tank
4. If none of the above are feasible a cesspool

Engaging the relevant water company will be required for you to support a proposal that does not connect into the public sewerage system

If the application is proposing a non-mains foul drainage system, the following form should be used to provide you with relevant details:
Foul drainage assessment form (FDA1) - GOV.UK (www.gov.uk)

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Surface water drainage

Applications will need to demonstrate that the surface water management hierarchy is utilised when assessing the options for the disposal of surface water from a development. Robust evidence should be submitted when an option is discounted. Infiltration should be fully assessed as the preferred option in the hierarchy.

Where not collected for re-use, surface water runoff should be discharged as high up the hierarchy of discharge solutions as is practicable:

- Discharge into the ground (infiltration);
- Discharge to a surface water body (with written permission from the riparian owner);
- Discharge to a surface water sewer, highway drain, or other drainage system;
- Discharge to a combined sewer;
- Discharge into the ground (infiltration) must therefore be explored as the primary method of surface water disposal from all development sites in the first instance.

Due to upcoming requirements to seek approval from SuDS Approval Bodies (SABs) – following the implementation of Schedule 3 of the Flood and Water Management act (2010); a more detailed level of design earlier in the planning and approval process than has been completed previously is likely needed; provided as part of a 'combined application' alongside the planning application. It is advisable for applicants and their consultants to consider early on the maintenance requirements for their SuDS scheme and potential routes for adoption. Early engagement with you and the Lead Local Flood Authorities (LLFA) is important.

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It is likely that you hold a local validation checklist. These can be particularly useful in ensuring that applications are accompanied by sufficient and robust evidence to support timely and effective decision making.

The pages in this section of the toolkit relate to how your submission and validation processes could be refined; namely through updating the validation checklist to include more water-specific objectives and tying them into the requirements outlined in your Local Plan.

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Submission & Validation items to consider	Resource(s)
SV1: You should ensure your validation checklist includes water-specific requirements in line with your Local Plan	N/A
SV2: You should have a process to identify planning applications that may have impacts or opportunities for the water environment. Certain development projects will be subject to Environmental Impact Assessment (EIA). The EIA regulations identify which developments are subject to EIA, or which should be screened for EIA. For projects where EIA is required, water impacts should be investigated with appropriate mitigation being put in place in response.	Page 1
SV3: Your validation checklist should include the need for the following assessments: • Flood Risk Assessments • Foul Drainage Assessments • Surface water Drainage Assessments • Water Framework Directive (WFD) Assessment Where an EIA has been carried out, impacts will be collated and summarised to enable consideration of the whole development. For non-EIA developments, it may still be necessary to request detailed assessments for specific topic areas such as ecology, flood risk and drainage. You should ensure sufficient evidence has been submitted to support the application.	Page 2 Page 3

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Impacts and Opportunities

All applications provide an opportunity to promote water environment benefits. You may wish to highlight specific types of application or scale of development where this will be greater. For example, validation criteria could require a plan showing any existing watercourses on and adjacent to the site, and information on how these are incorporated into the scheme's design.

Some Local Planning Authority's (LPAs) use a Geographic Information System (GIS) buffer approach to identify sites likely to have an impact on the water environment. However, as all sites have potential to offer benefits to the water environment, applicants could be directed to identify the closest water body to their site and consider how this may be affected (https://environment.data.gov.uk/catchment-planning/v/c3-plan)

Water Framework Directive (WFD) Page 26 of this "Advice note on the Water Framework Directive for Local Authorities across the Midlands" has some useful items under good practice for development management to promote WFD and water environment benefits. Note the document was produced in 2012 (and for the Midlands) but is still useful and mostly relevant (some sustainable drainage systems (SuDS) policy information may be outdated).

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Flood Risk Assessments

A Flood Risk Assessment should be required where the development may

- be at risk of flooding (any source)
- increase flooding elsewhere
- hinder future access to watercourses for maintenance purposes
- cause loss of the natural flood plain
- result in culverting (separate consent required)
- affect the integrity of existing flood assets; or
- results in an increase in surface water run-off

A site-specific flood risk assessment is required for proposals of 1 hectare or greater in Flood Zone 1; all proposals for new development (including minor development and change of use) in Flood Zones 2 and 3, or in an area within Flood Zone 1 which has identified critical drainage problems; and where proposed development or a change of use to a more vulnerable class may be subject to other sources of flooding.

The assessment should be undertaken by an appropriate specialist.

Foul Drainage Assessments

A Foul Drainage Assessment should be required where an application is proposing a non-mains foul drainage system. The following form should be used to provide relevant details to you: Foul drainage assessment form (FDA1)

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Surface water Drainage Assessments

It is important to liaise with the Lead Local Flood Authorities (LLFA) regarding the need for surface water drainage information to support different types of application. A surface water drainage validation tool may be helpful. An example of a validation tool and guidance can be viewed here: Surface Water Drainage Assessment (SWDA) Guidance and Validation Tool | West Devon Borough Council.

Water Framework Directive Assessments (WFDa)

WFD assessments are a form of evidence of your efforts to *have regard* to River Basin Management Plans (RBMPs) and the WFD.

A WFDa may be required if the proposal is large or has a particular risk for negatively impacting water bodies, especially for estuarine/coastal waters or those with the potential for increasing flood risk. There are no strict thresholds for when a WFDa will be required. Often screening for WFDa will be carried out as part of a Flood Risk Assessment or as part of Environmental Impact Assessment (EIA) screening.
You can find a 'Planning Checklist' for whether a WFDa should be prepared in Appendix B of 'Engaging with the Water Framework Directive: Guidance for Local Authorities' (Environment Agency (EA) / Dorset Wildlife Trust / Nottinghamshire Wildlife Trust). EA guidance on WFDa can be found:

- For flood risk activities (This includes activities such as culverting, amendments to the structure of a watercourse, building bridges or crossings)
- For estuarine and coastal waters
- Under “Can planning permission be granted for developments that harm water bodies?” on the Government water supply, wastewater and water quality guidance page.

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After receipt of a planning application, you must undertake a period of consultation where views on the proposed development can be expressed. This consultation is wide ranging and includes the general public and statutory consultees.

Consultees may support or raise objections to the development. This includes consideration of the water environment. Statutory consultees may request additional information to assist them in commenting on an application - this may relate to the water environment.

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Consultation items to consider	Resource(s)
CO1: Are there any water relevant 'non-statutory consultees' that have been identified in your area which should be notified about the application?	Page 1, 2 and 3
CO2: Do you require specialist advice to interpret water related supporting documentation?	N/A

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Schedule 4 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 outlines the statutory consultees who you are expected to engage with. The statutory consultees in relation to water comprise the Environment Agency (EA), the Lead Local Flood Authority, Natural England, water and drainage companies, and the Canal and River Trust. The need to engage is conditional on whether certain criteria apply. For example, in relation to the EA, Local Planning Authority's (LPAs) are required to engage where the following criteria apply:

- Development involving the carrying out of works or operations in the bed of, or within 20 metres of the top of a bank of, a main river which has been notified to the LPA by the EA as a main river for the purposes of this provision.
- Development for the purpose of refining or storing mineral oils and their derivatives.
- Development relating to the use of land as a cemetery.
- Development, other than minor development , which is to be carried out on land-

i) in an area within Flood Zone 2 or Flood Zone 3; or

ii) in an area within Flood Zone 1 which has critical drainage problems, and which has been notified for the purpose of this provision to the LPA by the EA.

- Major development which does not use the services of a sewerage undertaker for the disposal of sewage.

With regards to the Lead Local Flood Authority, you are required to consult where a planning application involves:

- Major development with surface water drainage.

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In addition to engaging with the statutory consultees, you should consider whether other groups or organisations with a water interest should be consulted. These groups or organisations might include:

- Catchment Partnerships
- Internal Drainage Boards
- The relevant Local Nature Partnership
- Relevant water companies
- Lead Local Flood Authorities (LLFA); including those from neighbouring Local Authorities where impacts might go beyond the boundary of the authority in which the development is sited within.
- Local Flood Groups and other community organisations
- Wildfowl and Wetlands Trust
- Wildlife Trust
- National Highways
- Network Rail

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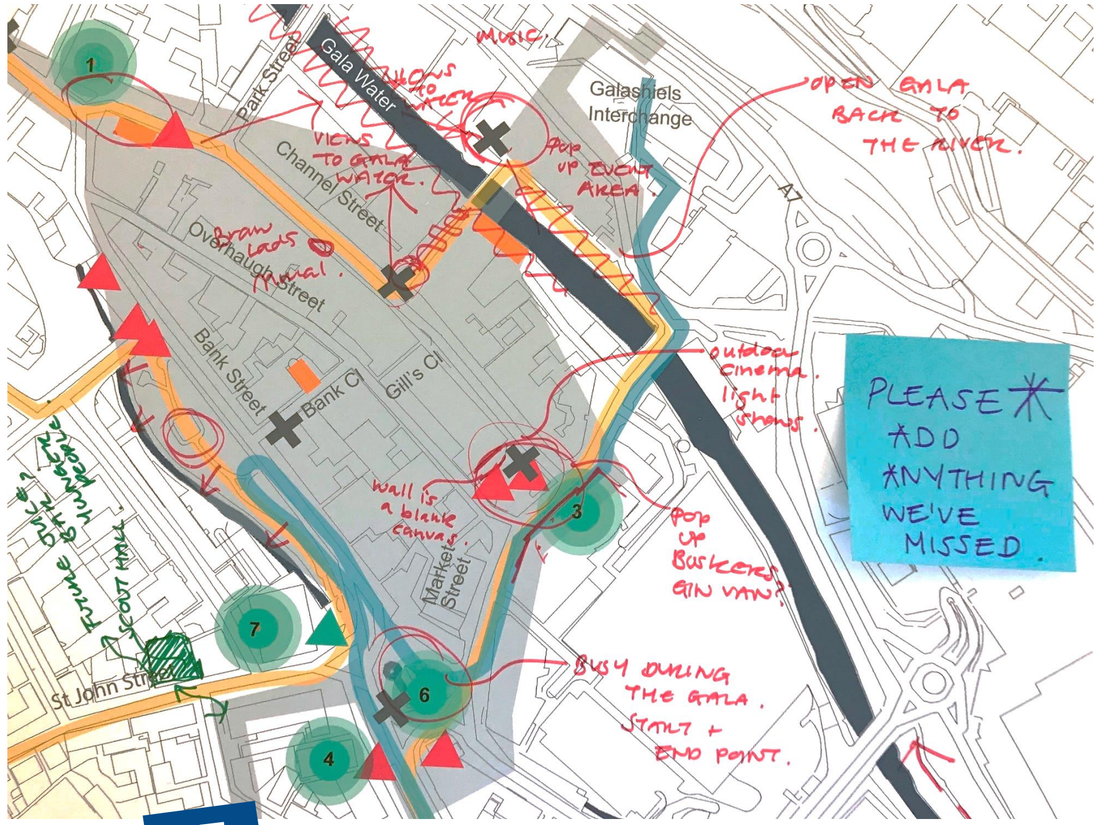
Where you have made an approach to a group or organisation to respond to a planning application, you should seek the requested feedback as soon as possible within the statutory period of 21 days. Where comments are not received within this timescale, you should follow-up as appropriate.

You should ensure that you understand the comments of those contributing as fully as possible. If there are uncertainties concerning the points being raised, you should seek to engage with the consultee in order that their points are understood. This will be particularly important where planning conditions have been suggested, and you are minded to include them on any planning consent.

In certain circumstances, additional expertise might be needed to further explore the matters or issues being raised. Comments should be fed back to the applicant as quickly as possible, particularly where additional information or clarity has been requested.

You should compare any received comments with those reported via the applicant's own Statement of Community Involvement (or equivalent).



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Planning applications need to be determined in accordance with the development plan, unless there are material considerations that indicate otherwise. You should ensure that the most relevant policies of the plan are considered, including those with a water focus. In determining an application, the water environment must be factored into the "planning balance".

This plan-led principle applies whether the application is determined under delegated authority, or by your planning committee. However, the water issues that an application should consider may be different, potentially due to the difference in scale of applications usually determined under delegated authority.

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Determination items to consider	Resource(s)
DE_FR1: You should be confident that the application will not lead to increased flood risk elsewhere (from all sources), based on information provided by the applicant and consultees. If not • you should request any relevant additional information from the applicant or consultee ***OR;*** • you should be confident that the application passes the sequential test and exceptions tests (assessed through a site-specific flood risk assessment).	Page 1 Page 2 Page 3
DE_WR1: You should be confident that the application can be supplied with adequate water resources.	Page 4
DE_WQ1: You should be confident that the application will not lead to the deterioration in the overall status of a waterbody and that the proposal contributes to meeting River Basin Management Plans (RBMP) objectives as far as possible (based on information provided by the applicant and consultees). If not; • You should request any relevant additional information from the applicant or consultee ***OR;*** • You should accept the deterioration, and that the application meets the following tests (assessed through a Water Framework Directive (WFD) assessment, if one has been prepared): • Has all practical mitigation been included? • Are there reasons of overriding public interest? • Do the benefits to human health, safety or sustainable development outweigh the deterioration? • Are better environmental options not technically feasible or cost proportionate?	Page 5 Page 6
DE_WW1: You should be confident that the appropriate foul drainage is in place to support the application.	Page 7
DE_GEN1: You should apply conditions to ensure compliance or delivery of water related aspects of the application.	Page 8

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Determination Resources - Flood Risk

Sequential test
It is for you as the local planning authority to consider the extent to which Sequential Test considerations have been satisfied.

The Sequential Test should be applied to 'Major' and 'Non-major development' proposed in areas at risk of flooding, but it will not be required where:

- The site has been allocated for development and subject to the test at the plan making stage (provided the proposed development is consistent with the use for which the site was allocated and provided there have been no significant changes to the known level of flood risk to the site, now or in the future which would have affected the outcome of the test).
- The site is in an area at low risk from all sources of flooding, unless the Strategic Flood Risk Assessment, or other information, indicates there may be a risk of flooding in the future.
- The application is for a development type that is exempt from the test, as specified in footnote 62 of the National Planning Policy Framework.

You should advise the applicant on the area of search for alternative sites and sources of information on alternatives. The Environment Agency (EA) should be consulted on the application of the sequential test.

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Exception test

The Exception Test requires two additional elements to be satisfied (as set out in paragraph 164 of the National Planning Policy Framework) before allowing development to be permitted in situations where suitable sites at lower risk of flooding are not available following application of the sequential test.

The exception test requires the applicant to demonstrate:

- How flood risk on your proposed site will be managed.
- How the sustainability benefits of the development to the community outweigh the flood risk.
- That the development will be safe for its lifetime taking into account the vulnerability of its users and the impacts of climate change.
- That the development will not increase flood risk elsewhere.

The applicant should provide a written justification that the application site passes the exception test. You must be satisfied that the exception test has been passed to permit development.

Further guidance on the application of the exception test can be viewed here: Flood risk and coastal change - GOV.UK (www.gov.uk)

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Site Specific Flood Risk Assessment

Site specific flood risk assessments are required for most developments within one of the flood zones.
This includes developments:

- in flood zone 2 or 3 including minor developments and change of use
- more than 1 hectare (ha) in flood zone 1
- less than 1 ha in flood zone 1, including a change of use in development type to a more vulnerable class (for example from commercial to residential), where they could be affected by sources of flooding other than rivers and the sea (for example surface water drains, reservoirs)
- in an area within flood zone 1 which has critical drainage problems as notified by the Environment Agency

Detailed guidance on requirements for Flood Risk Assessment (FRA) are contained in Preparing a flood risk assessment: standing advice - GOV.UK (www.gov.uk).

You may find it helpful to agree with your lead local flood authority the circumstances and locations where site specific flood risk assessments will always be required due to surface water or other local flood risks, lead local flood authority advice can be sought on other planning applications which raise surface water or other local flood risk issues.

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Water Efficiency vs. Demand
Where your Local Plan contains a policy requiring enhanced water efficiency in new developments as part of a strategy to manage water demand locally you should ensure the application is in conformity with the policy requirements. Learn more about shared standards in water efficiency for local plans here.

Applications with High Water Demands or Infrastructure Requirements
Where the application is for a large development not identified in the local plan, a water intensive use, or where there may be significant work required to connect to the water supply, the consultation response of the relevant water company should be afforded significant weight.

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Developments Affecting Water Quality and Environment

All land sits within the catchment area of a waterbody and therefore any development on land could potentially have an impact of some kind on the water environment. Ideally applications will:

- improve the water environment and ensure that opportunities to address Reasons for Not Achieving Good (RNAG) are maximised
- help to conserve and enhance watercourses and riverside habitats
- improve the water environment
- protect sensitive locations, e.g. wetland habitat and local abstraction points that may be protected areas in the River Basin Management Plans (RBMP)
- incorporate means of addressing relevant water cycle issues (if it will result in wastewater or surface water to be drained)
- be set back from any adjoining watercourse to enable access and enhancement of bankside habitats
- include efficient use of water in new buildings and refurbishments, and if justified by local evidence, higher levels of water efficiency beyond those set out in Building Regulations Part G
- incorporate sustainable drainage systems in new developments and retrofit of sustainable drainage systems (SuDS) to reduce the risks of flooding and enhance water quality and ecology

For Nationally Significant Infrastructure Projects (NSIP), this is an advice note issued by the Planning Inspectorate which outlines some expectations of a robust Water Framework Directive (WFD) assessment. (See Section 4).

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The information in the image across is from the Catchment-based Approach (CaBA) website's "Engaging with the Water Framework Directive" training document. The accompanying guidance document also describes the effect of development on the water environment in Section 5.2, and potential interventions that could contribute to positive Water Framework Directive (WFD) outcomes.

For more information on potential Integrated Water Management (IWM) solutions that development can implement, see the IWM pages of this toolkit. Additionally, the CaBA Peter Bide document "Urban Partnerships: Delivering sustainable urban water management through local action" is a useful resource to understand more about IWM.

Page 28 and 29 of "Advice note on the Water Framework Directive for Local Authorities across the Midlands" also has useful information on specific sustainable drainage systems (SuDS) techniques. Note the document was produced in 2012 (and for the Midlands) but is still useful and mostly relevant (some SuDS policy information may be outdated).

Reasons for Not Achieving Good (RNAG) and Reasons for Deterioration (RFD) are outlined in tables on the Catchment Data Explorer pages at the water body scale; to navigate to these pages, go through the Management Catchment scale, clicking through each relevant catchment area until you find the relevant water body. Alternatively, RNAG data and RFD data can be downloaded from the data.gov.uk website, including map data and filterable spreadsheet data.

How can planning contribute to Water Framework Directive Targets for improving water body status?

Biological quality	Hydromorphology	Specific pollutants, physico-chemical quality and chemical quality
Are there improvements which could be made to benefit aquatic flora and fauna? For example. Is there an opportunity for habitat creation or enhancement? What about protection of existing biodiversity – have appropriate surveys and impact assessments been carried out?	Can channel improvements be made, for example to revert to a more natural structure? Is it feasible to reduce culverting, make changes to flow rates or find better flood storage options such as floodplain reconnection or upstream storage?	How can the development reduce harmful inputs of sediments, chemicals and other compounds? Can solutions be found to reduce or eliminate inputs from farming, industry, residential and/or commercial operations?
✓ Include landscaping with native, locally appropriate species ✓ Encourage use of reedbeds to improve water quality ✓ Create buffer zones to protect habitat areas ✓ Require green infrastructure connections	✓ Reduce physical modifications ✓ Create more natural drainage ✓ Incorporate permeable areas ✓ Introduce water efficiency measures e.g. greywater systems	✓ Use SuDs to reduce run off volumes and improve quality, also remove silt ✓ Request a drainage plan from applicant ✓ Require remediation of contaminated land

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Connecting Sewerage
It is expected that most applications will connect into the public sewerage system.

The National Planning Practice Guidance and Building Regulations Approved Document H give a hierarchy of drainage options that must be considered and discounted in the following order:

1. Connection to the public sewer
2. Package sewage treatment plant (which can be offered to the Sewerage Undertaker for adoption)
3. Septic Tank
4. If none of the above are feasible a cesspool

Engaging the relevant water company will be required to support a proposal that does not connect into the public sewerage system

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Conditions
Section 70 of the Town and Country Planning Act 1990 states that you "…may grant planning permission, either unconditionally or subject to such conditions as they think fit." Paragraph 56 of the National Planning Policy Framework (NPPF) states that you should consider whether otherwise unacceptable development could be made acceptable using conditions or planning obligations.

Planning conditions should only be used where they satisfy the following tests, namely that a condition is:

- necessary;
- relevant to planning;
- relevant to the development to be permitted;
- enforceable;
- precise; and
- reasonable in all other respects.

These questions are referred to as the 6 tests, and each of them need to be satisfied for each condition which you intend to apply.

Early engagement and positive dialogue between you and an applicant can result in planning permission being granted with fewer conditions attached. Effective pre-application discussions can help to establish early in the process what may need to be the subject of conditions. A Planning Performance Agreement can be used to set a timetable for when discussions about conditions will take place.
The only conditions which can be imposed when the reserved matters are approved are conditions which directly relate to those reserved matters. Conditions relating to anything other than the matters to be reserved can only be imposed when outline planning permission is granted.

This document contains several model conditions relating to the water environment.

Glossary

Term/Acronym	Definition
Abstraction	The process of extracting water from any source (e.g., groundwater, rivers) to be treated and transported for domestic, commercial, industrial and/or agricultural use.
Buffer zones	Natural or managed areas surrounding water features and blue spaces that minimise human impact from surrounding land uses. Buffer zones can provide multiple benefits such as pollution filtration, habitat provision and preservation, erosion control and flood mitigation.
Catchment-based Approach (CaBA)	A 'bottom-up' and collaborative approach to water management at the river catchment scale with the aim to integrate local knowledge, data and expertise to deliver local environmental, social and economic benefits.
Catchment Partnerships	Voluntary catchment partnerships involving multiple organisations, businesses and stakeholders within a river catchment, with the goal to implement catchment-scale integrated management measures to improve the local water environment and deliver other social and economic benefits.

Term/Acronym	Definition
Drainage and Wastewater Management Plans (DWMPs)	Produced by water and sewerage companies, DWMPs look at the current and future capacity, pressures and risks to their drainage and wastewater networks (e.g. climate change and population growth).
Drinking Water Protected Areas (Surface Water)	Defined by the Water Framework Directive Regulations as locations where drinking water is abstracted providing, on average, more than 10 cubic metres per day, or serving more than 50 persons, or is intended for such future use.
Drinking Water Groundwater Safeguard Zones (Groundwater)	Areas established around groundwater sources used for public water supplies to provide additional pollution control.
Drinking Water Safeguard Zones (Surface Water)	Catchment areas that influence the water quality for their respective Drinking Water Protected Area (Surface Water).
Environmental Impact Assessment (EIA)	According to government guidance, the purpose of EIAs is 'to protect the environment by ensuring that a local planning authority when deciding whether to grant planning permission for a project, which is likely to have significant effects on the environment, does so in the full knowledge of the likely significant effects, and takes this into account in the decision-making process'.

Glossary

Term/Acronym	Definition
Exception Test	Used in cases where suitable sites at lower flood risk are not available following application of the Sequential Test. The Exception Test is meant to ensure flood risk is managed satisfactorily on developments.
Flood Risk Management Plans (FRMPs)	Developed by the Environment Agency, in collaboration with Lead Local Flood Authorities and other risk management authorities, FRMPs set out how communities and stakeholders will manage flood risk in nationally identified flood risk areas. FRMPs were made a requirement under the Flood Risk Regulations 2009. These Regulations have been revoked on 1st January 2024 by the Retained EU Law (Revocation and Reform) Act 2023. Nevertheless, the government expects to see the continued implementation of FRMPs.
Foul Drainage Assessments	A Foul Drainage Assessment, to be completed by the developer as part of a planning application, allows Local Planning Authorities to evaluate the impact of a proposed development on the drainage system, to identify potential issues and recommend solutions to mitigate impact.

Term/Acronym	Definition
Flood Zones	The flood zones show the areas of land at risk of flooding. They only show flood risk from rivers and the sea; they are based on present day flood risk (i.e. do not show how it may change in future because of climate change) and they ignore the effect any flood defences could have. There are three zones, which are defined as follows according to government guidance: • Locations in Flood Zone 1 have a low probability of flooding. This means in any year land has a less than 0.1% chance of flooding. • Locations in Flood Zone 2 have a medium probability of flooding. This means in any year land has between a 1% and 0.1% chance of flooding from rivers and between a 0.5% and 0.1% chance of flooding from the sea. • Locations in Flood Zone 3 (aka Flood Zone 3a) have a high probability of flooding. This means in any year land has a 1% or more chance of flooding from rivers, or a 0.5% or more chance of flooding from the sea. • Flood Zone 3b consists of land where water from rivers or the sea must flow or be stored in times of flood (i.e., functional floodplains). The flood zones are usually used for planning purposes.

Glossary

Term/Acronym	Definition
Green infrastructure (GI) / Green & Blue Infrastructure (GBI)	Refers to areas, networks and corridors of multi-functional green natural and semi-natural features (e.g., woodland) and spaces (e.g., parks). Blue infrastructure incorporates all elements of the water environment.
Greywater systems	Greywater systems redirect, treat and recycle water used in the household for washing (e.g., laundry, showering, baths) for non-potable uses, such as irrigation, flushing toilets and washing clothes.
Infrastructure Delivery Plan (IDP)	Local Planning Authorities develop IDPs to outline existing infrastructure gaps and how infrastructure projects will be delivered to support the Local Plan.
Integrated Water Management (IWM) Approach	IWM approach, often just called “IWM”, is a collaborative and holistic method of managing land and water which mitigates the risks to people and the environment from having too much and/or too little water, as well as risks related to water pollution. It incorporates mechanisms such as SuDS and Natural Flood Management which contain multiple benefits including to biodiversity, visual amenity, human and environmental health and the local economy.

Term/Acronym	Definition
Integrated Water Management Study (IWMS)	An IWMS aims to provide a robust evidence base considering water holistically and early in the planning process. IWMS enables Local Planning Authorities to consider multiple water disciplines in parallel and to identify opportunities and barriers for integrated water management strategies.
Lead Local Flood Authorities (LLFAs)	LLFAs are unitary authorities or county councils and have the primary responsibility for managing local flood risk from water bodies, surface water and groundwater. They are responsible for developing and maintaining Local Flood Risk Management Strategies (as required by the Flood and Water Management Act 2010).

Glossary

Term/Acronym	Definition
Local Nature Partnerships (LNPs)	Partnerships of organisations, businesses and stakeholders with the objective to manage and enhance the local natural environment to deliver environmental, social and economic improvements.
Nature-based Solutions (NbS)	Refers to solutions which aim to protect, sustainably manage and restore both natural and modified ecosystems to benefit both biodiversity and human well-being and provide essential services, such as securing safe drinking water supplies.
Natural Flood Management (NFM)	NFM uses natural processes to reduce the risk of flooding. NFM processes protect, restore and mimic the natural functions of catchments, floodplains and the coast to slow water flow and store water.
Nitrate Sensitive Areas (NSAs)	Refers to catchment areas with drinking water groundwater sources which are at risk of nitrate pollution.

Term/Acronym	Definition
Nitrate Vulnerable Zones (NVZs)	Refers to catchment areas designated as at risk from agricultural nitrate pollution, as designated by Defra
Regional Water Resource Plans	Developed by Regional Water Resources Groups, Regional Water Resource Plans outline how water resources will be managed in one of the five designated regions.
Regional Water Resources Groups	Collaborative organisations made up of water companies and other water users and stakeholders. There are five regional groups which aim to address water resource management challenges in their respective regions.
Risk Management Authorities (RMAs)	RMAs are organisations with legal responsibilities and powers for flood risk management that also have a duty to cooperate (as required by the Flood & Water Management Act 2010). RMAs include the Environment Agency, Lead Local Flood Authorities, water and sewerage companies, Internal Drainage Boards, Coast Protection Authorities, Highways Authorities and District and Borough Councils.
River Basin Districts (RBD)	The Water Framework Directive divides England and Wales into 11 RBDs, which are further divided into water catchments and water bodies. Each water body is monitored and classified to determine its overall “status”, reflecting chemical and ecological criteria.

Glossary

Term/Acronym	Definition
River Basin Management Plan (RBMP)	RBMPs are management plans developed by the Environment Agency and updated every six years for each river basin district, as required by the Water Framework Directive. RBMPs are made up of a series of documents and online systems presenting downloadable data and maps for the River Basin, its Management Catchments, Operational Catchments and individual water bodies.
Reasons for Not Achieving Good (RNAG) and Reasons for Deterioration (RFD)	These are terms used in River Basin Management Plans and show the source, activity and sector involved in causing a water body status to be at *less than good*; RFD indicates the reasons that a water body's status has declined.
Sensitive catchment areas	The Secretary of State, in accordance with powers provided via the Water Industry Act, has designated catchment areas that are considered sensitive to phosphorus or nitrogen. The areas that have been designated are those that are in an unfavourable condition, by virtue of water-based pollution associated with one or both nutrients.

Term/Acronym	Definition
Sequential Risk-Based Approach	Refers to an approach taken by Local Planning Authorities to consider all sources of flood risk and the current and future impacts of climate change – to avoid, where possible, flood risk to people and property.
Sequential Test	The Sequential Test is used to steer new development to areas with lowest risk of flooding from any source.
Site-Specific Flood Risk Assessment (FRA)	Site-Specific FRAs evaluate flood risk to a proposed development site and recommends measures for mitigating flood risk.
Source Protection Zones (SPZs)	Defined by the Environment Agency, SPZs show the level of pollution risk to groundwater sources used for drinking water supply.
Statement of Community Involvement (SCI)	The Statement of Community Involvement sets out the processes to be used by the local authority in involving the community in the preparation, alteration and continuing review of all local planning documents, and in the determination of planning applications.

Glossary

Term/Acronym	Definition
Strategic Flood Risk Assessment (SFRA)	SFRAs are carried out by Local Planning Authorities (LPAs) to assess flood risk (from all potential sources) and the impact of proposed development on flood risk. They also contain recommendations to reduce flood risk and identifies land needed for flood risk management. SFRAs are used to inform planning policy and decisions on development locations and are required as evidence for LPAs to apply the Sequential Test and Exception Test.
Level 1 and Level 2 Strategic Flood Risk Assessments (SFRAs)	Local Planning Authorities are required to produce Level 1 SFRAs to provide an overview of flood risk across the entire LPA area, from all potential sources. Level 2 SFRAs may need to be completed if planned development is located within flood risk areas. These SFRAs are more detailed and completed at the site-level.
Strategic Housing and Economic Land Availability Assessment (SHELAA)	Developed by Local Planning Authorities (LPAs), SHELAAs are used to determine the quantity and suitability of potentially available land for housing and economic development. The National Planning Policy Framework states that LPAs should prepare SHELAAs to inform their local plans. A SHELAA covers both housing and economic land, but some LPAs will prepare the housing and economic land assessments separately.

Term/Acronym	Definition
Surface Water Drainage Assessments	Evaluate the drainage systems of a proposed development site in order to identify risks to surface water management and flooding and recommend solutions to overcome these risks.
Surface Water Management Plan (SWMP)	SWMPs, developed by Lead Local Flood Authorities, identify areas with surface water management issues and outline the strategy for surface water flood risk management in a local authority area.
Sustainability Appraisal	An appraisal of the economic, environmental and social effects of a plan from the outset of the preparation process to allow decisions to be made that accord with sustainable development.
Sustainable Drainage Systems (SuDS)	They are sustainable drainage systems to control flow rates and reduce volumes of runoff and should provide multifunctional benefits wherever possible.
SuDS Approval Bodies (SABs)	Under Schedule 3 to the Flood and Water Management Act 2010, the Sustainable Drainage Systems (SuDS) Approval Body (SAB) would approve any construction work that has drainage implications before it is commenced and adopt drainage systems where applicable. The schedule was excluded from the Act's ratification, but may be implemented in the future.

Glossary

Term/Acronym	Definition
Water Cycle Study (WCS)	A WCS evaluates the capacity of water supply and associated infrastructure capacity and identifies potential conflicts between growth proposals and capacity constraints.
Water Framework Directive (WFD)	The WFD is a European Union directive which aims to ensure the good health of water bodies and prevent the deterioration in water body status. reduce water pollution and conserve aquatic habitats. It was transposed into the Water Environment (WFD) (England & Wales) Regulations 2017.
Water Framework Directive Assessment (WFDa)	WFDas evaluate the potential impact of proposed developments on the quality of a waterbody. The assessment is a form of evidence of a Local Planning Authority's efforts to have regard to River Basin Management Plans and the Water Framework Directive and is used to demonstrate that a proposed development will not contribute to the deterioration of water body status or jeopardize the achievement of "good status". WFD assessment: estuarine and coastal waters WFD assessment for a flood risk activity permit
Water Resource Management Plans (WRMPs)	Produced by water companies, WRMPs forecast water supply and demand over at least 25 years, identify water supply deficits, and consider supply-side and demand-site interventions to address the deficits.
Areas of serious water stress	Defined as areas where the current household demand for water is a high proportion of the current effective rainfall which is available to meet that demand; or the future household demand for water is likely to be a high proportion of the effective rainfall which is likely to be available to meet that demand. The Environment Agency has a list of areas of serious water stress in England.
Water storage areas	Water storage areas are outlined in the Environment Agency's Flood Maps and refer to areas engineered to hold water where it would not naturally accumulate, such as reservoirs created by dams. Water storage areas do not include natural sites unless these are modified to store more water than they would naturally.