

Newport Council

Newport Local Flood Risk Management Strategy

Draft Local Strategy

Reference:

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2024 - 2030


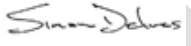
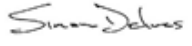
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Foreword

Under the Flood and Water Management Act (FWMA) 2010 NCC is designated as a Lead Local Flood Authority (LLFA).

The Flood and Water Management Act 2010 requires all 22 Lead Local Flood Authorities (LLFAs) in Wales to produce a Local Flood Risk Management Strategy.

In its role as LLFA NCC liaises with other LLFAs and Risk Management Authorities (RMAs) such as Dwr Cymru Welsh Water (DCWW) and Natural Resources Wales (NRW) and also riparian land owners and the Welsh government Flood Team to reduce flood risk. (Other primary legislation includes the Reservoirs Act 1974 and also the Land Drainage Act 1991).

As the LLFA, NCC has statutory duties:

- To prepare Local Flood Risk Management Strategies;
- To comply with the National Strategy for Flood and Coastal Erosion Risk Management;
- To co-operate with other authorities, including sharing data;
- To investigate all flooding within its area, insofar as the LLFA consider it necessary or appropriate;
- To maintain a register of structures and features likely to affect flood risk;
- To contribute to sustainable development;
- Through consenting powers on ordinary watercourses.
-

LLFAs are responsible for “local flood risk” which is defined as flood risk from: - Surface water runoff - Groundwater; and - Ordinary watercourses (generally smaller watercourses).

In Newport the risk of flooding is predominantly from the rivers Usk and Ebbw and tidal flooding from the Severn Estuary. In Newport NRW has identified six main flood risk areas which are Caerleon, Crindau, Duffryn, Goldcliff, Liswerry and Maindee.

There is also the risk of blockages/flooding from ordinary watercourses and sewers and ground water and surface water flooding. Climate change is expected to increase the frequency and severity of flooding, making it a significant concern going forward.

NCC has a statutory duty to prepare and regularly update its local FRMS. The local Strategy focuses on these local sources of flood risk, but acknowledges and considers other sources of flood risk (including the sea, rivers, larger watercourses and sewers) and the associated Risk Management Authorities (RMAs).

NCC's draft Local FRMS is an update to the existing Local Flood Risk Management Strategy and Flood Risk Management Plan which were previously approved by the Cabinet Member for Environment, Sustainability and Transport and published in 2014 and 2016 respectively. The aim of this Local Flood Risk Management Strategy is to reduce the risk to people and communities from flood and coastal erosion over the next five years and also to:-

- Improve our understanding and communication of risk
- Be prepared and build resilience to flood events
- Prioritise investment to the most at risk communities
- Prevent more people being exposed to flood risk
- Provide an effective and sustained response to flooding
- Set out how the council plans to meet these challenges

1. Introduction

The Flood and Water Management Act 2010 requires all 22 Lead Local Flood Authorities (LLFAs) in Wales to produce Local Flood Risk Management Strategies (Local Strategy).

The Welsh Government's National Strategy for Flood and Coastal Erosion Risk Management (FCERM) in Wales (National Strategy) sets out that over 245,000 properties across Wales are at risk of flooding from rivers, the sea and surface water, with almost 400 properties also at risk from coastal erosion. The National Strategy explains that, as the climate changes, we can expect those risks to increase, with more frequent and severe floods, rising sea levels and faster rates of erosion of the coast.

The National Strategy sets out the legislative context to FCERM activities in Wales. In certain cases, Local Authorities are also required to produce Flood Risk Management Plans (FRMP), under the 2009 Flood Risk Regulations. A summary of the legislative context to FCERM activities in Wales is provided in Appendix C – legislative context.

Different Risk Management Authorities (RMAs) in Wales are responsible for different sources of flood risk. LLFAs are responsible for “local flood risk” which is defined as flood risk from:

- Surface water runoff
- Groundwater; and
- Ordinary Watercourses (generally smaller watercourses)

This Local Strategy focuses on these local sources of flood risk but acknowledges and considers other sources of flood risk (including the sea, larger watercourses and sewers) and the associated RMAs.

The primary risk of flooding experienced by Newport is due to its coastal location and proximity to rivers, notably the River Ebbw, River Usk and the Bristol Channel. The city has a history of flooding incidents, primarily during periods of heavy rainfall and high tides. Climate change is expected to increase the frequency and severity of flooding, making it a significant concern for residents and priority for RMAs. Measures like flood defences, improved drainage systems, and floodplain management are in place to mitigate the risk, but ongoing monitoring and adaptation are essential to safeguard the city from future flood events and their potential impact on the local community and infrastructure.

1.1 The purpose of this Local Strategy

The first Newport Local Strategy was published in 2014, setting out the overarching approach to managing local flood risk. Alongside our Local Strategy, NCC published a FRMP which developed the objectives and high-level actions outlined in the Local Strategy into a more detailed plan for managing flooding in our communities.

This document is Newport's second Local Strategy. Whilst previously the Local Strategy and FRMP were published separately, this new Local Strategy integrates the two documents into one. This reduces complexity and enables communication and management of local flood risk more effectively.

This document explains how flooding will be managed across the Local Authority area, consistent with the objectives, measures and related policies and legislation set out in the National Strategy. This Strategy will be published in March 2024 and will be reviewed every 6 years.

1.2 Structure of this Local Strategy

This document is structured as follows:

Chapter 2	Gives an overview of climate change flood risk in our area and how this Local Strategy seeks to address these risks.
Chapter 3	Summarises how this Local Strategy aligns with our other strategic plans, for example our Local Development Plan and Shoreline Management Plan(s). It also summarises how we have developed the Local Strategy in coordination with other stakeholder plans, such as NRW's River Basin Management Plans (RBMPs) and the DCWW Drainage and Wastewater Management Plan (DWMP).
Chapter 1	Sets out the roles and responsibilities for managing flood risk in our area. It also highlights some of the key policies we have in place for managing local flood risk

Chapter 5	Describes our strategic objectives or ambitions for managing flood risk in the coming years, and how these align with the objectives set out in the National Strategy.
Chapter 6	Presents an assessment of the risk of flooding across our Local Authority.
Chapter 7	Summarises the different ways in which flood risk management activities can be funded, as well as how we prioritise these activities.
Chapter 8	Sets out our flood risk management measures. These are broad activities and ways of working which help us to meet our strategic objectives.
Chapter Error! Reference source not found.	Sets out our flood risk management action plan. This is a focused plan, detailing specific actions required to meet our measures.
Chapter 11 Error! Reference source not found.	Assesses the proposed strategy in accordance with environmental assessments.
Chapter 11	Describes how we will measure and monitor our progress in delivering the objectives, measures and actions set out in this Local Strategy.

1.3 Targets within this Local Strategy – Objectives, Measures and Actions

This Local Strategy sets out our flood risk management Objectives, Measures and Actions. These three groupings provide different levels of detail on how flood risk will be managed. The meaning of each is summarised below:

	Description	Example
Objectives	<p>Overarching targets or outcomes of flood risk management during, or beyond, the Local Strategy cycle.</p> <p>Statements of Local Authority ambition for flood risk management.</p> <p>Specific to the Local Authority, but linked to the National Strategy Objectives</p>	Reduce number of residential properties exposed to flood risk.
Measures	<p>Broad activities and ways of working to meet the Objectives.</p> <p>Typically apply to the Local Authority area rather than specific communities/locations within it.</p> <p>Are loosely time-bound and are measurable at a high-level, with indicative costs and benefits.</p>	Increase our use of natural flood risk management processes to reduce flood risk
Actions	<p>Specific tasks, activities or initiatives, planned and tracked, to meet the Measures.</p> <p>Reviewed and updated on a regular basis, reporting on progress every year</p> <p>Short, medium and long term with clearly defined outputs/outcomes.</p> <p>Typically location-specific within the local authority area.</p>	Implementation of a flood scheme in a specific ward .

2. How this strategy responds to climate change

2.1 Climate change risk in our area

The Senedd was the first Parliament in the world to declare a climate emergency. Climate change is likely to increase the risk of flooding across Wales, not only through sea level rise but also from more frequent and intense storms, flash flooding and storm surges.

Newport Council declared a climate and ecological emergency in November 2021, as part of this declaration, the council made a number of resolutions regarding decarbonisation and adaptation to climate change. The commitments of particular relevance which will be adhered to throughout the production of this local strategy are provided below:

- Review the services we provide to ensure they support the city's journey to both net zero carbon and adapting to the impacts of climate change by 2050.
- Work with One Newport partners and the public to develop a city-wide climate strategy to enable city-wide net zero carbon and adaptation to climate change by 2050 and integrate best ecological practice into each area of the council's activity, allowing us to lead the city by example.

The Newport City Council Organisational Climate Change Plan sets out the themes, priorities, actions, and milestones that NCC needs to take as a Council over the next five years to:

- Reach net zero carbon as an organisation by 2030.
- Review the services it provides to ensure they support the city's journey to net zero and adaptation to climate change. A 29% reduction of Council scope 1 and scope 2 carbon emissions has already been achieved in the last three years.

To deliver on this the plan six delivery themes have been identified.

1. Organisational Culture & Leadership

The climate and nature emergency will be at the heart of all our work. In our decisions we will take positive action to minimise climate change and ecological impacts. We will lead by example empower our partners, communities, and individuals to tackle the climate change emergency and prioritise nature -based emergencies.

2. Our Buildings

To achieve net zero carbon energy and support the nature recovery across our buildings by 2030.

3. Our Land

A city which sustainably manages and increases its natural resources, protecting, enhancing, improving and connecting the natural environment in a carbon neutral and climate and ecological responsible manner.

4. Transport & Mobility

A city with healthy and sustainable travel choices for the Council and the people of Newport and Wales.

5. The Goods and Services We Procure

Procurement will be at the heart of ensuring that our external contracting minimises the climate impact and carbon footprint of goods, works, and services procured.

6. Our Wider Role

Leading by example and proactively supporting our communities and partners towards society wide carbon net zero and climate change action.

NCC intends to build climate resilience and alleviate flooding across the city using a range of measures including natural flood defences.

To achieve this NCC will:

- Develop a sustainable drainage strategy for Newport and maximise opportunities for SuDS across the city.
- Update the local flood risk management strategy in line with the WG national strategy.
- Prioritise FCERM schemes and apply for Welsh Government grant funding as it becomes available.
- Investigate any problems with existing flood assets and update the flood asset database.
- Work with RMAs such as Dŵr Cymru Welsh Water, NRW and other local authorities in South East Wales to influence decision making relating to flood risk.

Within the Newport's Currently adopted Local Development Plan, Objective 2 relates specifically to Climate Change, which states the following:

“To ensure that development and land uses in Newport make a positive contribution to minimising, adapting to or mitigating against the causes and impacts of climate change, by incorporating the principles of sustainable design, changes to travel behaviour, managing the risks and consequences of flooding, and improving efficiency in the use of energy, waste and water.”

Newport is in the process of developing a replacement Local Development Plan, at the time of writing the methodology this was not available however it is the intention that the emerging climate objectives contained within the replacement LDP have been considered in the production of the Local Strategy.

This Local Strategy will help to manage some of the effects of climate change in our area. The objectives, measures and actions it identifies will help us to reduce the risk of flooding where we can, as well as adapt our communities and infrastructure to become more resilient to flooding when it occurs.

2.2 How our strategy addresses these risks

The Flood Map for Planning (FMfP) can be considered as the best available information on flood risk and will replace the Development Advice Map for planning purposes in 2024. The mapping includes climate change information to show how this will affect flood risk extents for rivers, the sea and surface water and small watercourses over the next century.

In August 2022, the Welsh Government provided supplementary information to the Welsh Government’s FCERM Business Case Guidance titled ‘Guidance for Flood and Coastal Erosion Risk Management Authorities in Wales. This guidance sets out the climate change allowances for sea levels, peak river flows, extreme rainfall, and storm surge data. In the most recent revision, one key change is the update to sea level rise projections to reflect the revised projections published in November 2018 by UK Climate Projections (UKCP18).

The guidance also sets out the two approaches to the management of climate change for FCERM projects, these are firstly a Managed Adaptive, where appraisals consider the flood risk management measures that are not necessary now but may be in the future. Secondly, a Precautionary Approach where measures are designed to fully account for estimated climate change.

Future developments in Wales will have to consider flooding and coastal erosion risk caused by climate change during planning due to be implemented by the Welsh Government through the introduction of TAN15. Under the new policy where the start has been undecided, developers will now have to account for flood risk and coastal erosion maps that show current risk levels and predict the future risk posed by climate change.

In September 2021, the Welsh Government published guidance on the use of climate change allowances for Flood Consequence Assessments to be used in the support of relevant planning applications, and to inform development plan allocations. The guidance sets out peak river flow allowances to be used, the climate change factors to be applied to peak rainfall intensity and sea level rise allowances according to the Local Authority Area.

The strategy addresses the oncoming risks of Climate Change through the priority of long term flood risk management. As part of the wider role working subgroup conducted in 2021, the flooding aspect became one of the priorities of the Organizational Climate Change Plan. The strategy is committed to building climate resilience across the city to aid the Council’s journey to net zero carbon emissions.

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3. Coordination

3.1 How this strategy aligns with our other strategic plans

In the production of this Local Strategy, NCC has considered the aims and objectives of other strategic documents in place or currently in development at a local, national and regional landscape.

This chapter sets out how the Local Strategy aligns with key policy documents and provides a visual guide to the interlinking local, national, and regional policy and guidance documents in

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Figure 1.

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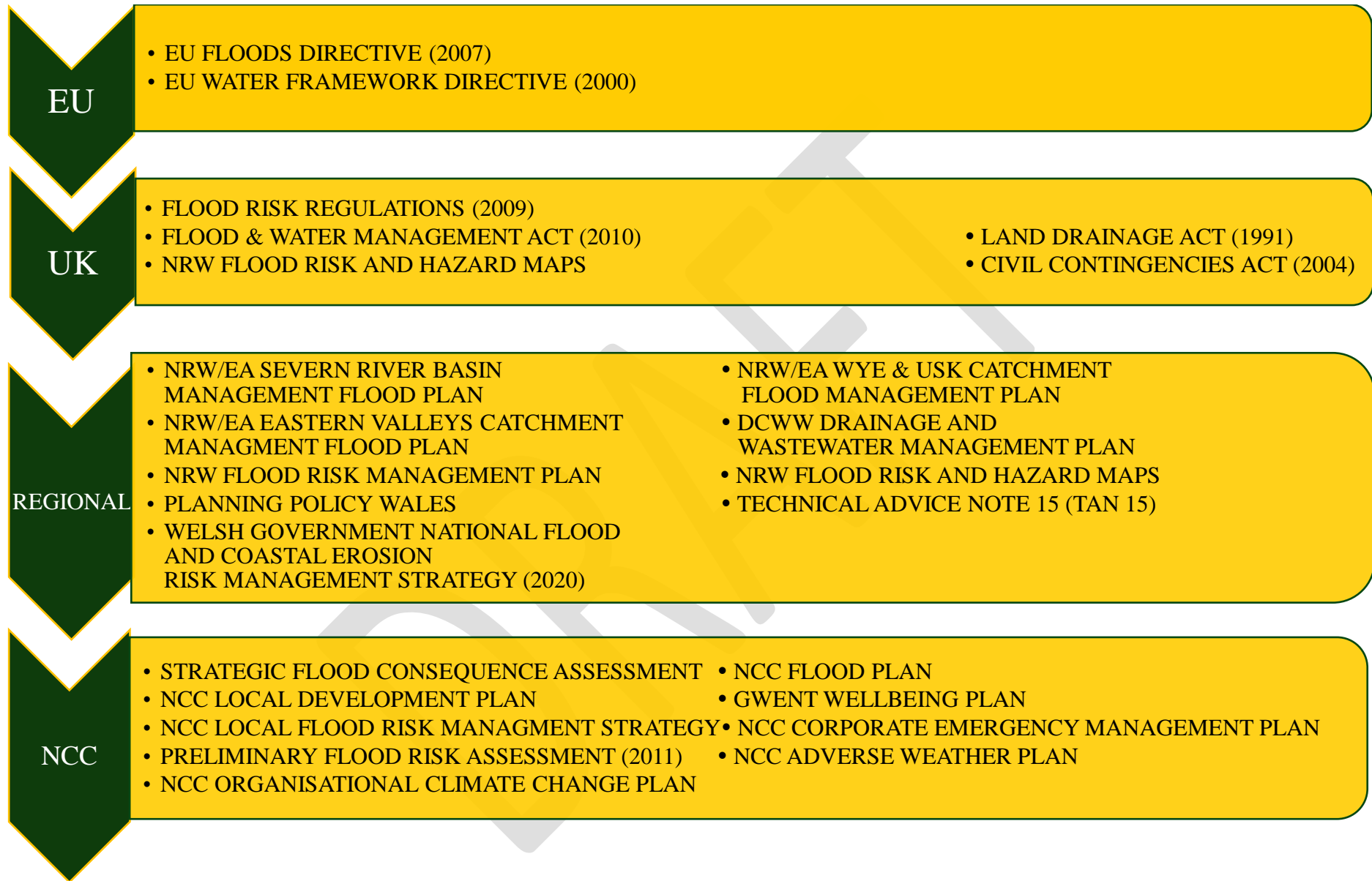


Figure 1 National, regional, and Local Policy and Guidance related to the Local Strategy

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3.2 Coordination with others

Both the Wellbeing of Future Generations (Wales) Act and the Flood and Water Management Act 2010 require collaboration. The Welsh Government encourages catchment approaches, with partners working at a catchment scale to manage flood risk.

The strategy has been developed in coordination with Newport's Risk Management Authorities (RMAs), including South Wales Fire and Rescue Service, Natural Resources Wales and Dŵr Cymru Welsh Water. This coordination includes collection of historic flood incidents and the alignment of the strategy with their strategic plans. The collation of flood actions are set out in detail within the Flood Action Plan in Appendix B.

Successful management of flood risk relies on having a two-way dialogue with those affected by flooding and at potential risk of flooding. It is important to enhance their understanding of the risk and increase awareness. Equally, it is important to understand what is important to them so that measures can be implemented which considers the needs of the community.

The Local Strategy will be subject to a public consultation during January-March 2024 to understand the views of the residents, businesses and other organisations in Newport on local flood risk, and help shape the strategy. In addition, Natural Resources Wales, Caldicot and Wentlooge Levels IDD, Dŵr Cymru Welsh Water and the Welsh Government were also invited to comment on the draft. Details of these consultations are discussed below.

Effective joint working between Risk Management Authorities (RMAs) is fundamental to the effective delivery of the objectives measures and actions (more details in section 9). This is appreciated within the strategy itself, which imposes a duty on all RMAs to co-operate in order to facilitate partnership working, the sharing of information and enhance communications. In coordination with the other strategic plans, the strategy promotes better collaboration in the mitigation of flood risk. The summary of the other strategic plans are detailed below.

Plan / Strategy	Scope
Severn River Basin Management Plan (RBMP) (2022)	As Newport is on the Severn Estuary, the Severn RBMP is a plan led by NRW and the Environment Agency. Under the Water Environment (Water Framework Directive (WFD) (England and Wales) Regulations 2017 (referred to as the WFD Regulations 2017) a management plan is required for each River Basin District (RBD) in Wales and England. Working together to provide a framework to protect and improve the river environment. The strategy utilises the plan through identifying opportunities in the delivery of the WFD
Wye and Usk Catchment Management Flood Plan (CFMP)	The Wye and Usk CFMP is a strategic plan to assess and manage flood risk within the Usk catchment boundary, supporting land planning decisions, actions and policies to mitigate flood risk in the catchment. Newport is one of the seven sub units in the plan focusing on the policy option to take further action on areas of moderate to high flood risk. The strategy utilises the plan through the SFCA working together with NRW and neighbouring LLFA's.
Southeast Valleys Catchment Management Flood Plan (CFMP)	The Eastern Valleys CFMP is a strategic plan to assess and manage flood risk within the River Ebbw corridor and the Wentlooge Levels for Newport, supporting land planning decisions, actions and policies to mitigate flood risk in the catchment. Newport is one of the seven sub units in the plan focusing on the policy options to take further action to sustain current risk, continue with existing or alternative actions to manage flood risk at the current level. The strategy utilises the plan through the SFCA working together with NRW and neighbouring LLFA's.
Dŵr Cymru Welsh Water Drainage and Wastewater Management Plan (DWMP)	The DWMP is the first edition prepared by Dŵr Cymru Welsh Water (the water and sewerage undertaker for the City of Newport) outlining the long term management of drainage and sewerage in the region. The strategy acknowledges Collaboration with the with other Risk Management Authorities to manage and mitigate the risk of sewer flooding.
Natural Resources Wales Flood Risk Management Plan	The FRMP is NRW's strategic document to manage flood risk from the river and the coast under Section 25 of the Flood Risk Regulations (2009) The Council utilises the areas identified with significant flood risk in the assessment of local flood risk.

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4. Roles and responsibilities for managing flood risk

4.1 Sources of flooding and key points of contact

According to the requirements of the Flood and Water Management Act 2010, this Local Strategy only needs to address flood risk arising from local sources, i.e. surface water runoff, groundwater and Ordinary Watercourses. Flood risk arising from sewers is not included within the definition of local flood risk. Under the Act, the management of sewer flood risk is the responsibility of the sewer operator/water company.

It is acknowledged that when flooding occurs those affected by it do not distinguish between the source or the type of flooding. However, it is essential to identify the source to ensure that the responsibility for managing the flood risk is clearly allocated. The potential sources of flooding and the organisations that are responsible for managing it in Newport are summarised in Figure 2.



Figure 2 Sources of Flooding and responsibilities

4.2 Risk Management Authorities and their functions

Risk Management Authorities (RMA) across Wales include NRW, the 22 Local Authorities, water companies, and the Welsh Government. Each RMA is required to fulfil a number of statutory duties, as defined under the FWMA. In addition to these statutory duties, the Act sets out a range of permissive powers for RMAs, enabling them to undertake defined activities if they so wish.



Newport City Council

As Lead Local Flood Authority (LLFA), Newport City Council (NCC) has the responsibility to develop, maintain, apply and monitor a strategy for local flood risk management (Local Strategy) arising from surface water runoff, Ordinary Watercourses, Local Authority regulated reservoirs and groundwater



Natural Resources Wales

Natural Resources Wales is responsible for managing flood risk from Main Rivers and the sea.



Dŵr Cymru Welsh Water

Responsible for sewer flooding and flooding resulting from burst water mains.



South Wales Trunk Road Agency

Responsible for managing South East Wales's motorway and trunk road network. Welsh Government is the Highway Authority, SWTRA being their management agents.

Caldicot and Wentlooge Levels Internal Drainage District

Internal Drainage Districts are the responsibility of NRW for managing water levels in low-lying areas. They are the land drainage authority within their districts and their functions include supervising land drainage and flood defence works on Ordinary Watercourses.

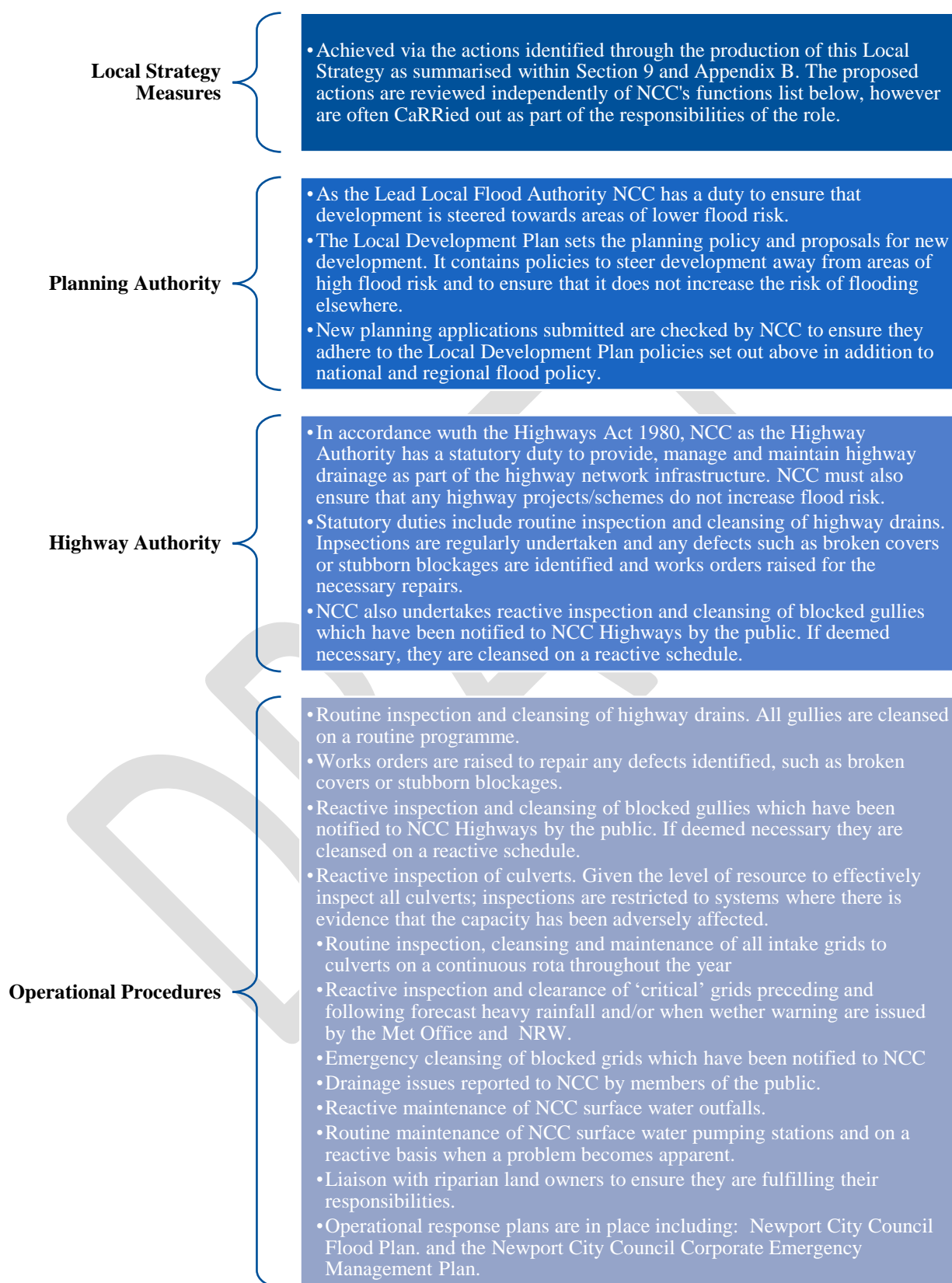
4.3 Other responsible partners

There are a number of other stakeholders with responsibilities in relation to flood prevention and response, these are outlined below:

- South Wales Fire and Rescue Service** South Wales Fire and Rescue Service have a statutory duty to respond to flooding and water rescue incidents.
- Riparian Landowners** Those who own land adjoining, above or with a watercourse running through it, are ‘riparian landowners’ and are key to efforts to manage flood risk from Ordinary Watercourses. A guide to rights and responsibilities of riverside ownership in Wales can be found through the following [link](#).
- Property Owners** Homeowners and businesses have a responsibility to look after the property. Individuals can take action to reduce the impact of flooding, through incorporating building specific flood resilience and resistance measures.
- Public Health Wales** Public Health Wales constantly maintains advice and guidance on the public health impacts of flooding.
- Neighbouring LLFAs** – They have a duty to manage flood risk and coordinate with Newport. NCC’s neighbouring LAs are Caerphilly County Borough, Cardiff City, Monmouthshire County and Torfaen County Borough Councils
- National Flood Forum** The National Flood Forum are a registered charity and exist to support individuals and communities at risk of flooding. They provide information and advice and recovery services after a flood event.
- Network Rail** Network Rail are responsible for managing the flood risk and responding to events on their assets. They are also statutory consultees on planning applications adjacent to their assets to ensure drainage is sufficiently designed.
- Gwent Local Resilience Forum** Set up as a requirement of the Civil Contingencies Act 2004, Local Resilience Forums (LRF) are the principal mechanism for multiagency collaboration to ensure the effective delivery of the duties identified in the act. They contribute towards emergency plans to prevent, prepare for, respond to and recover from major flood incidents. (As a Category One responder as defined by the Act, Newport City Council are a key partner within the Gwent Local Resilience Forum.)

4.4 How we manage flooding in our area

NCC manage flood risk arising from surface water, groundwater and Ordinary Watercourses primarily through a range of different mechanisms. These are set out below.



5. Our Strategic Objectives

5.1 National Strategy Objectives

The National Strategy sets out an overarching aim to reduce the risk to people and communities from flooding and coastal erosion. It identifies 5 objectives for delivering this aim. These are summarised below.



Figure 3 National Strategy Objectives

For this Local Strategy, we have developed our own strategic objectives which both align with the National Strategy objectives and reflect our local context and priorities.

5.2 Local Strategy

NCC has set objectives for Newport's Local Strategy by translating the four overarching objectives of the National Strategy into objectives specific to Newport. It should be noted that the flood objectives are draft at this stage and will be updated and reviewed as appropriate following the finalisation of the NCC's replacement Local Development Plan.

These objectives are aimed at reducing the consequences of flood risk arising from local sources and coastal erosion risk, and address the short term (0-20 years), the medium term (20-50 years) and the long term (50-100 years) outcomes of the strategy. This ensures that the objectives are also consistent with the requirements of the Regulations. The objectives of the strategy are described in the table below. As the Risk Management Authorities, the governing bodies and the industry as a whole develop their understanding of local flood risk and coastal erosion, the strategy will also evolve and consequently the objectives will need to be reviewed.

Table 1 Local Strategy Objectives

<i>Overarching objectives of the National Strategy for Flood and Coastal Erosion Risk Management in Wales</i>	<i>Objectives of NCC's LFRMS</i>
<p><i>Improving our understanding and communication of risk</i></p> <p><i>Preparedness and building resilience.</i></p>	<ol style="list-style-type: none"> 1. Ensure that those living in areas susceptible to local flood and coastal erosion risks are aware of it and understand what actions they can take to improve their protection 2. Ensure that NCC works in partnership with all Management Authorities and works collaboratively with adjacent Authorities for successful implementation of the strategy 3. Reduce the number of residential and commercial properties affected by the risk of flooding 4. Prepare an asset maintenance and management plan
<p><i>Prioritising investment to the most at-risk communities.</i></p>	<ol style="list-style-type: none"> 5. Prepare a programme of investment for flood risk management based on a cost benefit analysis for communities at risk
<p><i>Preventing more people becoming exposed to risk</i></p>	<ol style="list-style-type: none"> 6. Develop effective land use and land management policies, and development management procedures
<p><i>Providing an effective and sustained response to events</i></p>	<ol style="list-style-type: none"> 7. Prepare emergency response plans and test their implementation 8. Respond to flood incidents and implement subsequent recovery measures in a timely manner

6. What is the risk of flooding in our area?

6.1 How we assess flood risk

The risk of flooding in Newport has been characterised using a range of sources including flood mapping, incidents of historic flood mapping and consultation as outlined in the figure below. These are outlined below:

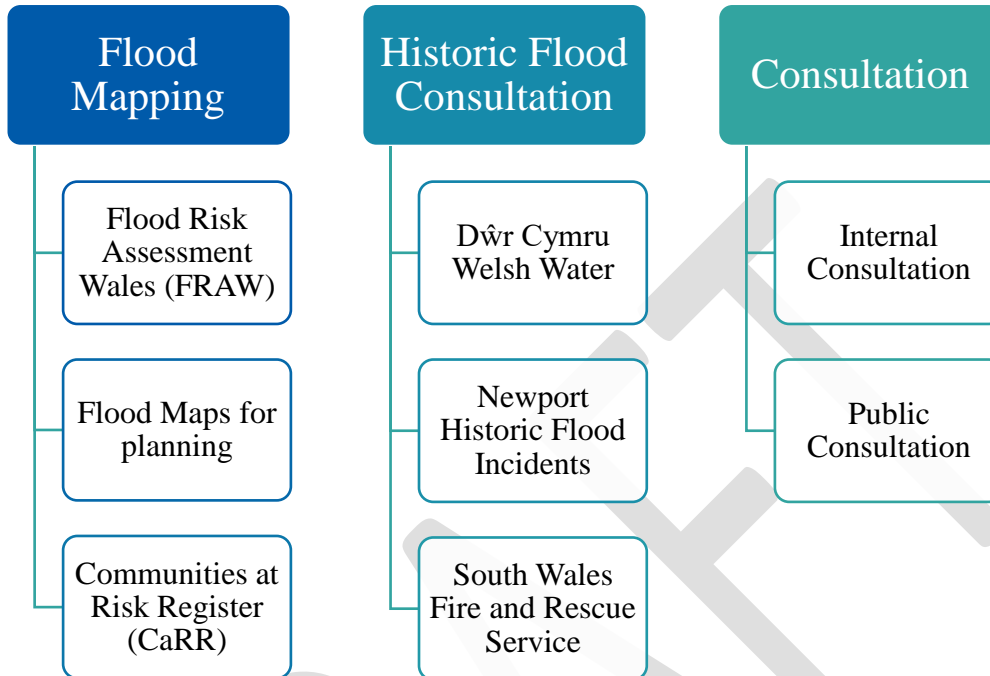


Figure 4 Sources of Information used to determine flood risk

6.1.1 Flood Mapping

The assessment of local flood risk in Newport is critical to managing and reducing the risk of flooding. Since the publication of the first LFRMS in 2013, and its FRMP in 2015, improvements in available mapping and datasets, together with improved asset data, has provided the Council with a much more enhanced and accurate understanding of local flood risk In Newport.

At the time of this strategy production, two flood maps were the **Flood Risk Assessment Wales Map (FRAW)** and the **Flood Map for Planning/ Development Advice Map (FMfP)**. With the introduction of the **Communities at Risk Register (CaRR)** that assesses risk on the community scale, the LLFA have utilised the best available datasets and tools to accurately assess local flood risk in Newport. giving consideration to our ability to update our assessments where required, i.e., when new data is updated in line with the schedule set out in the National Strategy.

FRAW provides a national assessment of risk flooding from Rivers, the Sea and Surface Water and Small Watercourses (replacing the Risk of Flooding Rivers and Sea, or RoFRS, dataset). The assessment takes into account flood defences and combines new, national-scale modelling with detailed local-scale models to categories risk into 3 bands, labelled 'High', 'Medium' and 'Low' risk.

- **High risk** means that each year, this area has a chance of flooding of greater than 1 in 30 (3.3%)
- **Medium risk** means that each year, an area has a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.3%).

- **Low risk** means that each year, an area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%).

Refer to Figure 5 to view the risk of flooding from surface water and small watercourses across Newport. The full map can be accessed through the following link: <https://flood-riskmaps.naturalresources.wales>

The CaRR provides a national assessment of flood risk and hazard from all sources of flooding. It was produced by NRW, on behalf of the Welsh Government, to provide an objective method for identifying risk and prioritising flood risk management activities at a Wales wide, community level. The utilisation of the CaRR has also allowed the Authority to develop a greater understanding of its local flood risk, at both the national and local scale, enabling the comparison of risk between communities. The datasets, coupled with local knowledge of the local flooding hotspots in the city and local flood history to provide local context, have been used to identify 38 communities for assessing flood risk in Newport. This will be utilised in prioritising the actions required to alleviate flood risk with the City of Newport. The public will be able to access the CaRR layer on the Council’s public GIS layer.

The Welsh Government is due to implement a revised TAN15 This will be supported by the Flood Map for Planning, which shows how climate change will affect flood risk extents over the next century. The map shows the potential extent of flooding assuming no defences are in place and can be accessed through the following link: <https://flood-map-for-planning.naturalresources.wales/>

6.1.2 Historical Flood Incidents

Historical flood incidents from across Newport have been used this strategy to characterise the risk of flooding. The sources used are included in the table below and plotted within Figure 6.

Table 2 Sources of Historical Flood Risk Information

Source	Dataset	Description
NCC	Anecdotal information relating to local flood history and flood risk areas	Anecdotal information from authority members regarding areas known to be susceptible to flooding from excessive surface water, groundwater or flooding from Ordinary Watercourses .
Dŵr Cymru Welsh Water	DG5 register for Dŵr Cymru Welsh Water	DG5 Register logs and records of sewer flooding incidents in each area.
Natural Resources Wales	Recorded Flood Event Outlines (FEOs)	Attributed spatial flood extent data for flooding from all sources
South Wales & Fire Rescue	Historic flooding records	Records of historic flooding events from the Fire Service’s call out history records including location, incident type and response given.

6.2 Overview of flood risk in our area



Fluvial Flooding is flooding from Main Rivers. These are usually larger watercourses and rivers, although some can be small watercourses of significance. The tidally influenced River Usk, running through the centre of Newport presents a significant source of fluvial flooding in Newport. In the West of Newport, the River Ebbw is the primary fluvial flood risk, particularly to the North of the Wentlooge levels. The Caldicot Levels (IDD) experience a high risk of flooding resulting from the extensive network of reens in that area.



Coastal Flooding occurs when high tides combine with severe weather, leading to storm surges and large waves. NCC is bordered by the Severn Estuary to the south, which itself forms part of the Bristol Channel and is a tidally influenced system. The tidal limit of the Usk extends beyond Newport's boundary making tidal and fluvial flood risk a key concern. A significant area of Newport benefits from the presence of tidal defences along the edge of the Estuary.



Surface Water Flooding is usually caused by heavy rainfall either when a catchment is saturated after a period of persistent rainfall or impermeable after a prolonged dry period. Notable historic surface water flooding includes the City Centre, Station Road and Margaret Avenue in December 2020.



Flooding from **Ordinary Watercourses** involves watercourses that do not form part of a main river. This could include a lake, pond or other area of water, which flows into an Ordinary Watercourse. The blocking of culvert inlets has been identified as a primary cause of Ordinary Watercourse flooding in Newport, there are currently 87 of these which NCC are responsible for maintaining.



Flooding from **Groundwater** occurs when water rises from underground and the soil becomes saturated. The solid geology of the study area is relatively uniform and is dominated by mudstone, siltstone and sandstones. On a strategic scale in Newport, groundwater is not considered to be a significant flood risk and is considered to rise and fall relatively slowly. In addition, the local geology is not considered to yield significant volumes of groundwater.



Sewer Flooding occurs when the capacity of a sewer system is exceeded. Water and sewerage companies are responsible for this. The sewer network in Newport mostly comprises combined sewers that take both foul sewage and surface water. DCWW is the statutory water undertaker and is responsible for the public sewer systems within the Borough. DCWW maintains a register of historical property sewer flooding events which shows that there have been 417 incidents of localised sewer flooding within the borough.

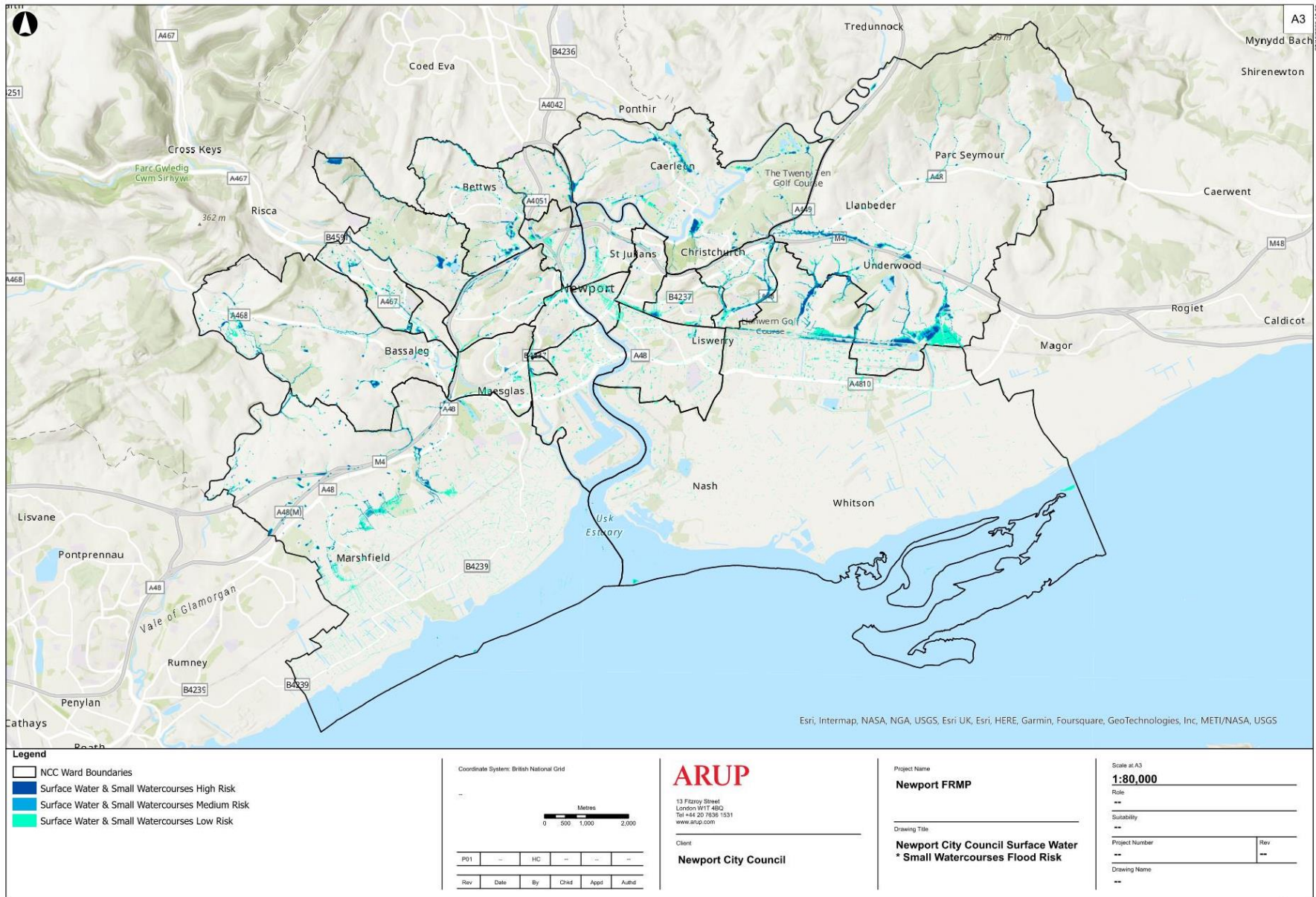


Figure 5 Newport City Council Surface Water and Small Water Courses Flood Risk

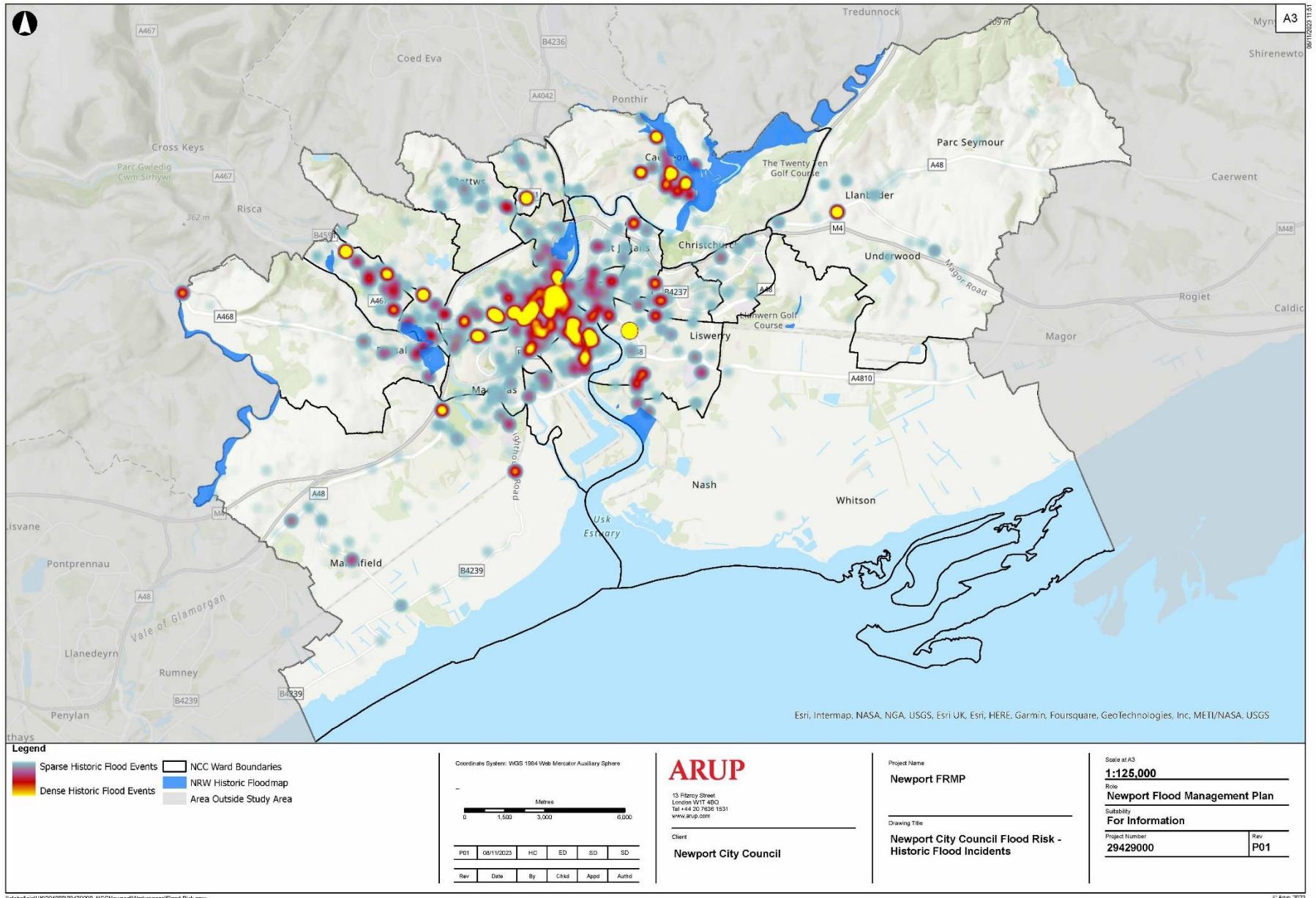


Figure 6 Newport City Council Historical Flood Risk

6.3 Flood Counts

Flood Count analysis is a tool used to characterise the risk of flooding across Newport. It provides the number or area of each land use (or feature) within each flood risk zone as defined by the Flood Map for Wales (FRAW) surface water and Ordinary Watercourse flooding.

Guidance on FRMP preparation is available from the Environment Agency, NRW, and WLGA. This includes details of the features to be considered when evaluating flood risk from surface water and Ordinary Watercourses. The features have been divided into three categories:

- Risk to People
- Risk to Economic Activity (Refer to Figure 7 for included land uses)
- Risk to Natural and Historic Environment. (Figure 8 for included land uses)

The flood risk zones are defined as follows:

- High risk means that each year, this area has a chance of flooding of greater than 1 in 30 (3.3%)
- Medium risk means that each year, an area has a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.3%).
- Low risk means that each year, an area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%).

The results of the flood count methodology for the whole of Newport can be seen in Table 4, Table 4 and Table 6 below. The outputs for individual wards are contained in the ward specific Storymaps which can be accessed through links in 6.4.

Table 3 Summary of the predicted risk from surface water to a range of receptors

Risk Receptor	High Risk chance of flooding greater than 1 in 30 each year)	Medium Risk (chance of flooding between 1 in 30 and 1 in 100 each year)	Low Risk (chance of flooding between 1 in 100 and 1 in 1000 each year)
Residents in areas at risk of flooding (depth >0.0m)	2,208	4,072	17,988
Residential properties at risk of internal flooding (depth >0.2m)	559	963	4077
Essential Services (n)	14	24	94
Non-Residential Properties (n)	133	300	855
Primary/Trunk Roads (km)	1.80	2.71	6.40
Main Line Railways (km)	0.82	1.57	4.18
Agricultural Land - Grades 1, 2 and 3 (ha)	51.39	71.72	161.06
Special Areas of Conservation (SAC) (ha)	0.2	0.82	6.52
Special Protection Areas (SPA) (ha)	0.15	0.59	5.73
Ramsar Sites (ha)	0.15	0.59	5.73
Sites of Special Scientific Interest (SSSI) (ha)	11.51	21.22	122.45
Sites of Interest for Nature Conservation (SINC)	16.29	23.44	46.84
National Nature Reserves (NNR) (ha)	0.04	0.25	2.75
Local Nature Reserves (LNR) (ha)	0.91	1.14	1.86
Ancient Woodland (ha)	10.61	14.69	28.31
Registered Parks and Gardens (ha)	0.94	1.95	6.79
Country Parks (ha)	0.17	0.46	1.43
Scheduled Ancient Monuments (SAM) (ha)	1.06	1.56	3.55
Listed Buildings (n)	14	21	59

Table 4 Total features at high risk of surface water flooding (greater than a 1 in 30 chance of flooding in any year)

Risk Receptor	Allt-yr-yn	Alway	Beechwood	Bettws	Bishton and Langstone	Caerleon	Gaer	Graig	Llanwern	Llswerry	Malpas	Pillgwenlly	Ringland	Rogerstone East	Rogerstone North	Rogerstone West	Shaftesbury	St. Julian's	Stow Hill	Tredegar Park and Marshfield	Victoria
Residents in areas at risk of flooding (depth >0.0m)	60	270	89	233	226	74	22	67.2	12	22	38	17	638	19	26	53	82	58	142	55	7
Residential properties at risk of internal flooding (depth >0.2m)	16	71	20	74	41	25	8	18	3	5	12	6	156	7	4	14	19	17	33	9	1
Essential Services (n)	2	2	0	1	3	0	0	0	0	0	1	0	1	0	0	2	0	1	1	0	0
Non-Residential Properties (n)	7	1	0	0	12	6	1	2	4	0	1	3	0	0	0	7	0	4	79	5	1
Primary/Trunk Roads (km)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Main Line Railways (km)	0	0	0	0	0	0.01	0	0.48	0	0	0	0	0	0	0	0.3	0	0	0.03	0	0
Agricultural Land - Grades 1, 2 and 3 (ha)	1.31	0	0	5.70	15.03	7.72	0.16	7.92	0.68	0	1.03	0	1.23	0	1.39	0.42	0.22	0.03	0	8.57	0
Special Areas of Conservation (SAC) (ha)	0	0	0	0	0	0.03	0	0	0.05	0.01	0	0	0	0	0	0	0	0.01	0	0.09	0.05
Special Protection Areas (SPA) (ha)	0	0	0	0	0	0	0	0	0.05	0	0	0	0	0	0	0	0	0	0	0.09	0.05
Ramsar Sites (ha)	0	0	0	0	0	0	0	0	0.05	0	0	0	0	0	0	0	0	0	0	0.09	0.05
Sites of Special Scientific Interest (SSSI) (ha)	0	0	0	0	6.26	0.03	0	0	0.17	0.01	0	0	0	0	0	0	0	0.01	0	5.02	0
Sites of Interest for Nature Conservation (SINC)	1.22	0.04	0	4.05	1.32	1.6	0.25	1.34	0.21	0	0.93	0	0.09	0	4.27	0.65	0.06	0	0	0.24	0
National Nature Reserves (NNR) (ha)	0	0	0	0	0	0	0	0	0.04	0	0	0	0	0	0	0	0	0	0	0	0
Local Nature Reserves (LNR) (ha)	0.47	0	0	0	0	0.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ancient Woodland (ha)	0.23	0	0.18	0.68	1.15	1.35	0	1.66	0.49	0	0.09	0	0.29	0.02	1.5	0.69	0.07	0	0	2.2	0
Registered Parks and Gardens (ha)	0.17	0	0.22	0	0.06	0	0.04	0.2	0	0	0	0	0	0	0	0	0.01	0	0.01	0.23	0
Country Parks (ha)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.17	0
Scheduled Ancient Monuments (SAM) (ha)	0	0	0	0	0.64	0.27	0	0	0	0	0	0	0	0	0.15	0	0	0	0	0	0
Listed Buildings (n)	1	0	0	0	2	0	0	1	0	0	0	1	0	0	0	2	0	0	7	0	0

Table 5 Total features at medium risk of surface water flooding (between 1 in 30 and 1 in 100 chance of flooding in any year)

Risk Receptor	Allt-yr-yn	Alway	Beechwood	Bettws	Bishton and Langstone	Caerleon	Gaer	Graig	Llanwern	Llswerry	Malpas	Pillgwenlly	Ringland	Rogerstone East	Rogerstone North	Rogerstone West	Shaftesbury	St. Julian's	Stow Hill	Tredegar Park and Marshfield	Victoria
Residents in areas at risk of flooding (depth >0.0m)	187	482	310	456	367	122	105	101	12	46	50	108	878	55	22	82	134	139	235	86	94
Residential properties at risk of internal flooding (depth >0.2m)	59	122	56	100	64	35	34	23	1	6	16	16	227	15	3	19	30	26	80	19	12
Essential Services (n)	2	2	1	2	5	1	0	0	0	0	1	0	2	0	0	2	0	1	5	0	0
Non-Residential Properties (n)	7	4	1	0	16	10	2	2	5	1	1	16	1	1	0	8	3	4	203	7	8
Primary/Trunk Roads (km)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Main Line Railways (km)	0	0	0.01	0	0	0.06	0	0.65	0	0	0	0	0	0	0	0.36	0	0.02	0.43	0	0.03
Agricultural Land - Grades 1, 2 and 3 (ha)	1.6	0	0	7.7	21.4	10.4	0.5	11.1	1.1	0	1.5	0	1.6	0	2	0.7	0.6	0.1	0	11.6	0
Special Areas of Conservation (SAC) (ha)	0	0	0	0	0.01	0.06	0	0	0.38	0.06	0	0	0	0	0	0	0	0.04	0	0.27	0
Special Protection Areas (SPA) (ha)	0	0	0	0	0	0	0	0	0.32	0	0	0	0	0	0	0	0	0	0	0.27	0
Ramsar Sites (ha)	0	0	0	0	0	0	0	0	0.32	0	0	0	0	0	0	0	0	0	0	0.27	0
Sites of Special Scientific Interest (SSSI) (ha)	0	0	0	0	9.51	0.06	0	0.01	0.90	0.06	0	0.01	0	0	0	0	0	0.04	0	10.64	0
Sites of Interest for Nature Conservation (SINC)	1.48	0.17	0	5.55	2.21	2.23	0.38	1.91	0.34	0	1.2	0	0.22	0	6.41	0.76	0.21	0.04	0	0.33	0
National Nature Reserves (NNR) (ha)	0	0	0	0	0	0	0	0	0.25	0	0	0	0	0	0	0	0	0	0	0	0
Local Nature Reserves (LNR) (ha)	0.53	0	0	0	0	0.61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ancient Woodland (ha)	0.32	0	0.20	0.84	1.82	1.88	0	2.39	0.67	0	0.18	0	0.42	0.07	2.09	0.77	0.16	0	0	2.88	0
Registered Parks and Gardens (ha)	0.31	0	0.25	0	0.13	0	0.37	0.34	0	0	0	0	0	0	0	0	0.01	0	0.01	0.53	0
Country Parks (ha)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.46	0
Scheduled Ancient Monuments (SAM) (ha)	0	0	0	0	0.8	0.52	0	0	0	0	0	0	0	0	0.23	0	0	0	0	0.01	0
Listed Buildings (n)	1	0	0	0	2	0	0	1	0	0	0	5	0	0	0	2	0	0	10	0	0

Table 6 Total features at low risk of surface water flooding (between 1 in 100 and 1 in 1000 chance of flooding in any year)

Risk Receptor	Allt-yryn	Alway	Beechwood	Bettws	Bishton and Langstone	Caerleon	Gaer	Graig	Llanwern	Llswerry	Malpas	Pilligwenilly	Ringland	Rogerstone East	Rogerstone North	Rogerstone West	Shaftesbury	St. Julian's	Stow Hill	Tredegar Park and Marshfield	Victoria
Residents in areas at risk of flooding (depth >0.0m)	739	1106	931	850	338	576	547	382	65	1226	2808	1536	1978	245	122	372	1094	1178	698	562	2662
Residential properties at risk of internal flooding (depth >0.2m)	210	250	266	252	192	148	156	79	9	215	54	353	496	75	33	68	213	221	190	71	517
Essential Services (n)	7	4	2	5	13	7	1	1	10	5	2	4	5	0	0	2	5	4	8	3	6
Non-Residential Properties (n)	16	8	9	2	22	32	9	4	9	56	5	130	9	2	0	12	49	44	326	20	92
Primary/Trunk Roads (km)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Main Line Railways (km)	0	0	0.01	0	0.04	0.52	0.12	1.04	0.01	0	0	0.03	0	0	0	0.93	0	0.05	1.39	0	0.04
Agricultural Land - Grades 1, 2 and 3 (ha)	2.66	0.02	0	14.74	43.38	19.06	2.57	25.34	11.01	0	2.95	0	3.04	0.01	4.15	2.04	1.91	0.4	0.07	27.72	.0
Special Areas of Conservation (SAC) (ha)	0	0	0	0	0.1	0.24	0	0	4.27	0.11	0	0	0	0	0	0	0	0.15	0	1.65	0
Special Protection Areas (SPA) (ha)	0	0	0	0	0	0	0	0	4.08	0	0	0	0	0	0	0	0	0	0	1.65	0
Ramsar Sites (ha)	0	0	0	0	0	0	0	0	4.08	0	0	0	0	0	0	0	0	0	0	1.65	0
Sites of Special Scientific Interest (SSSI) (ha)	0	0	0	0	32.88	0.24	0	0.11	19.66	0.11	0	0.1	0	0	0	0	0	0.15	0	69.21	0
Sites of Interest for Nature Conservation (SINC)	2.18	1.33	0.01	10.22	6.06	5.09	0.57	3.93	2.87	0.41	2	0	1.42	0.04	8.38	0.82	0.27	0.49	0	0.74	0
National Nature Reserves (NNR) (ha)	0	0	0	0	0.02	0	0	0	2.74	0	0	0	0	0	0	0	0	0	0	0	0
Local Nature Reserves (LNR) (ha)	0.71	0	0	0	0	1.15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ancient Woodland (ha)	0.54	0	0.25	1.35	5.16	3.74	0.04	4.83	1.26	0	0.35	0	0.94	0.19	3.71	0.93	0.22	0	0	4.79	0
Registered Parks and Gardens (ha)	0.77	0	0.41	0	0.38	0	2.11	1.35	0	0	0	0	0	0	0	0	0.03	0	0.07	1.67	0
Country Parks (ha)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.43	0
Scheduled Ancient Monuments (SAM) (ha)	0	0	0	0	1.32	1.6	0	0.02	0.01	0	0	0	0	0	0.57	0	0	0	0	0.02	0
Listed Buildings (n)	0	0	0	1	4	3	0	4	0	1	0	7	0	0	2	2	1	1	14	3	7

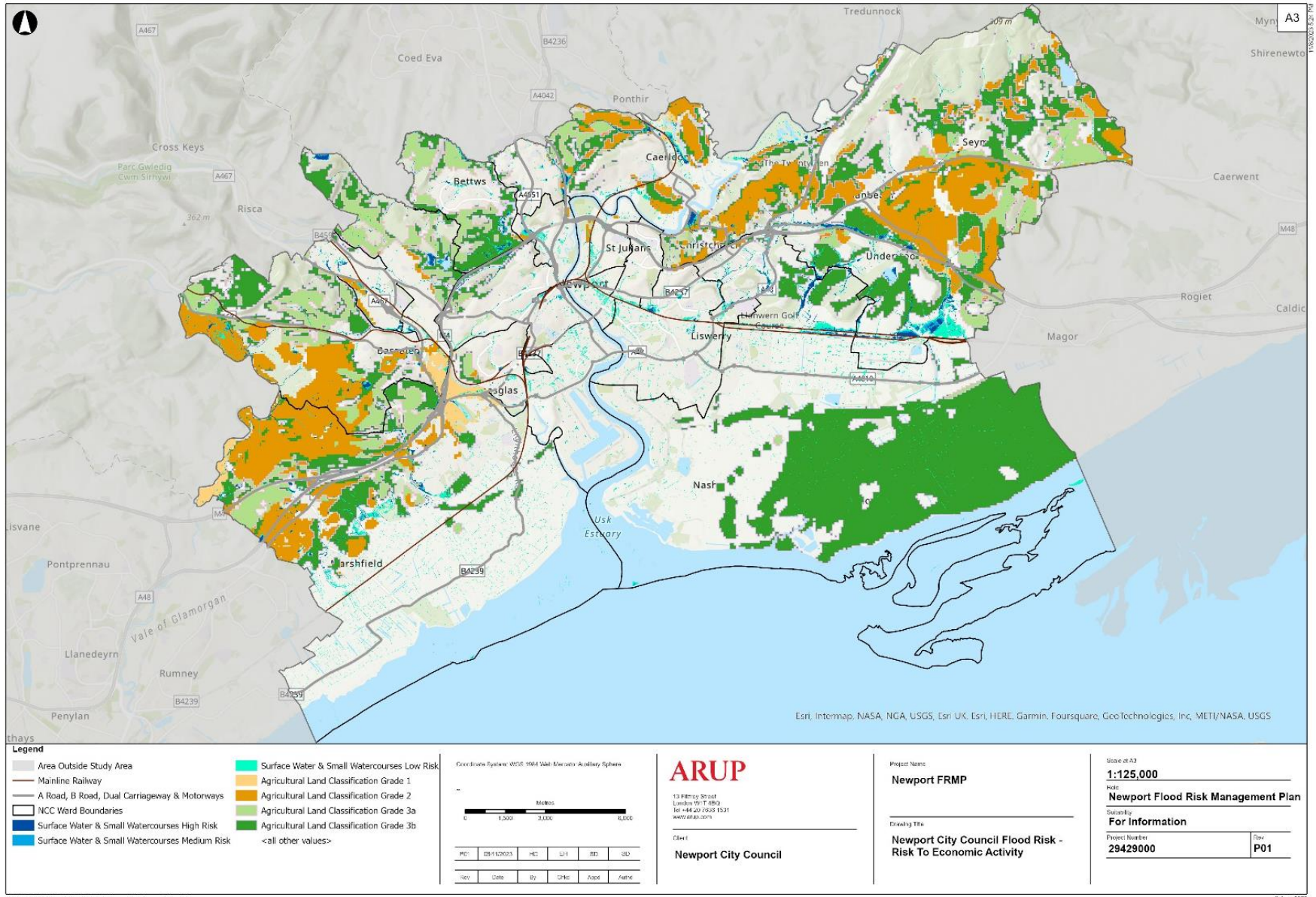
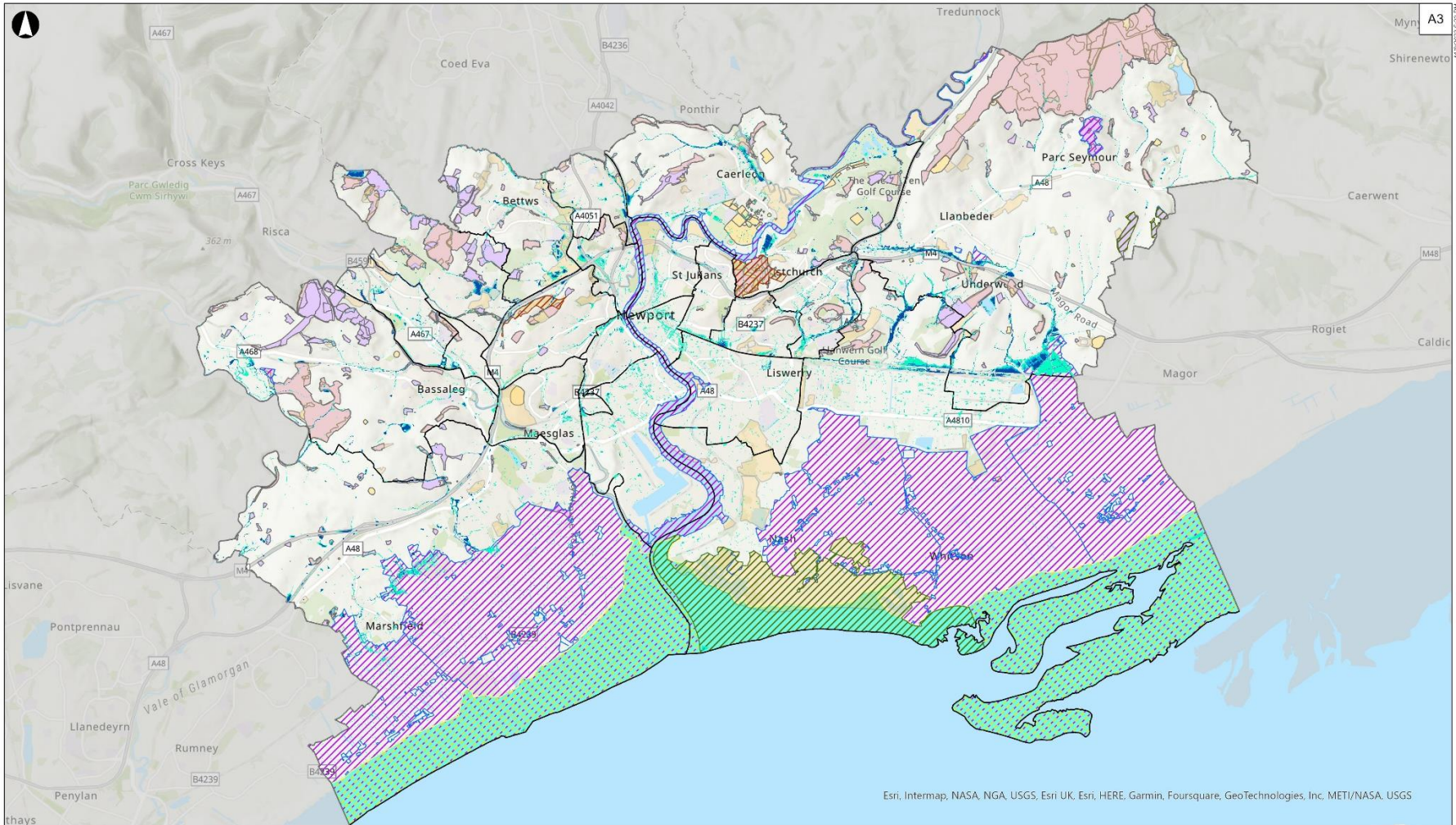


Figure 7 Local Flood Risk to Economic Activity



Esri, Intermap, NASA, NGA, USGS, Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS

Legend <ul style="list-style-type: none"> NCC Ward Boundaries National Parks Local Nature Reserve National Nature Reserve Special Protection Areas (SPA) Sites of Special Scientific Interest (SSSI) SINCS_region Ancient Woodland Inventory 2021 Ramsar Sites Scheduled Ancient Monuments (SAM) Surface Water & Small Watercourses Low Risk Surface Water & Small Watercourses Medium Risk Surface Water & Small Watercourses High Risk Area Outside Study Area 		<p>Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere</p> <p>Metres</p> <p>0 1,000 3,000 6,000</p> <table border="1"> <tr> <td>PN1</td> <td>06/11/2023</td> <td>JHC</td> <td>EH</td> <td>SD</td> <td>SD</td> </tr> <tr> <td>Rev</td> <td>Date</td> <td>By</td> <td>Chk'd</td> <td>App'd</td> <td>Aud'd</td> </tr> </table>	PN1	06/11/2023	JHC	EH	SD	SD	Rev	Date	By	Chk'd	App'd	Aud'd	<p>ARUP</p> <p>13 Finsbury Street London W1T 3SQ Tel +44 20 7636 1531 www.arup.com</p> <p>Client Newport City Council</p>	<p>Project Name Newport FRMP</p> <p>Drawing Title Newport City Council Flood Risk - Risk to Natural and Historic Environment</p>	<p>Scale at A3 1:125,000</p> <p>From Newport Local Flood Risk Management</p> <p>Stability For Information</p> <table border="1"> <tr> <td>Project Number 29429000</td> <td>Rev P01</td> </tr> </table>	Project Number 29429000	Rev P01
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Figure 8 Local Flood Risk to Natural and Historic Environment

6.4 Flood Risk in your community

Local flood risk will be managed on a ward boundary scale. This provides a suitable level of granularity whilst directly linking into NCC governance structures. The proceeding sections set out a summary of the flood risk in each of the 21 Newport Wards, as defined in Figure 9 below.

For further information, including individual flood counts on the flood risk within each ward and how it is managed refer to online Storymaps, linked below:

Allt-yr-yn	Pillgwenly
Alway	Ringland
Beechwood	Rogerstone East
Bettws	Rogerstone North
Bishton and Langstone	Rogerstone West
Caerleon	Shaftesbury
Gaer	St. Julian's
Graig	Stow Hill
Llanwern	Tredegar Park and Marshfield
Lliswerry	Victoria
Malpas	

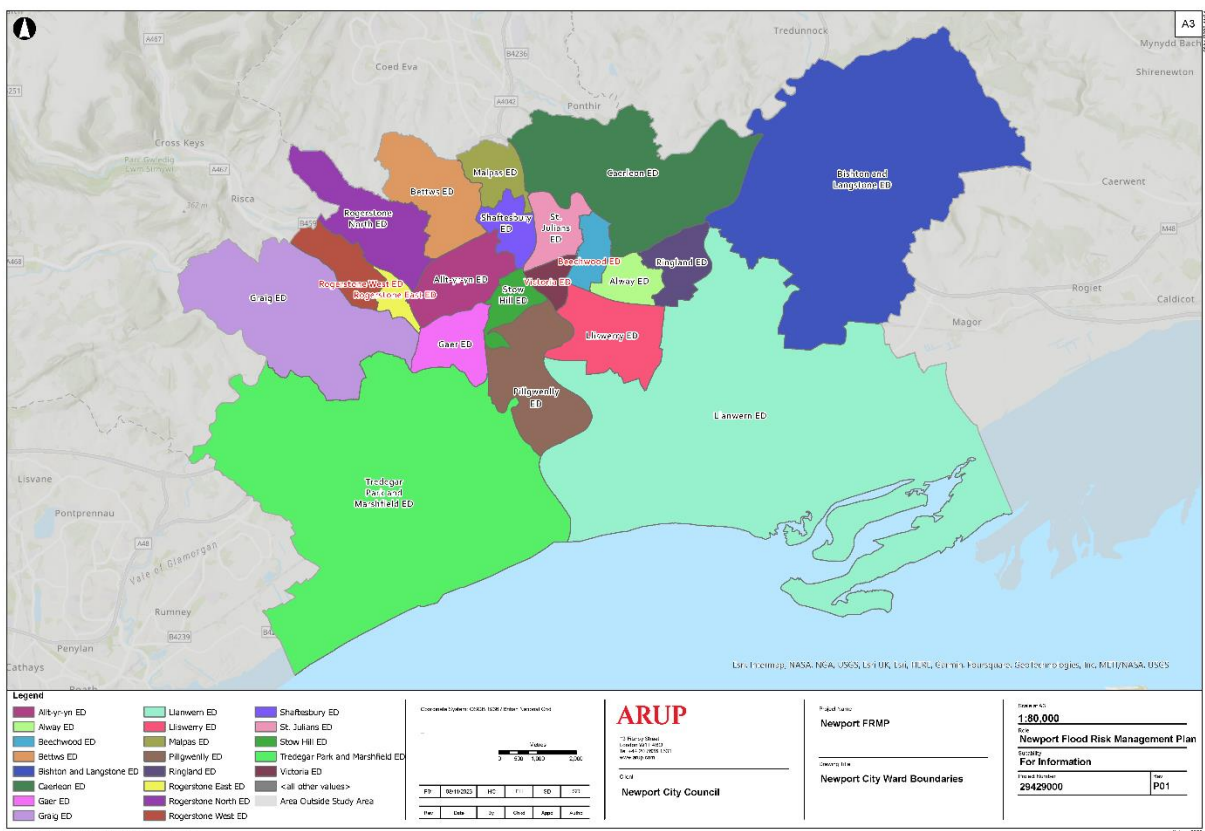


Figure 9 Newport Electoral Wards

6.4.1 Allt-Yr-Yn

Allt-Yr-Yn Ward is situated in central Newport. It has a population of 9,497¹ and covers an area of 3.83km², which is approximately 2.0% of the total area of Newport at 191 km². Allt-Yr-Yn slopes down gently from north-west to east. The majority of the ward is predominantly residential use, with green open space to the North. On the west side of Allt-Yr-Yn heights there is a Local Nature Reserve containing ancient woodland and meadows. There are no Main Rivers in this ward.

The majority of flood risk incidents in Allt-Yr-Yn occur towards the south-east of the ward following along major roads such as Risca Road and more minor routes such as Sorrel Drive, St Woollos Cemetery, Llanthewy Road and Fields Park Road. These risks are comprised of surface water/culvert flooding perpetuated by a storm water pumping station issue. In response to these incidents, the measures proposed include pipework and culvert improvement works along Risca Road and St Woollos Cemetery.

For further, ward specific information refer to Storymap saved here: [Allt-Yr-Yn](#)

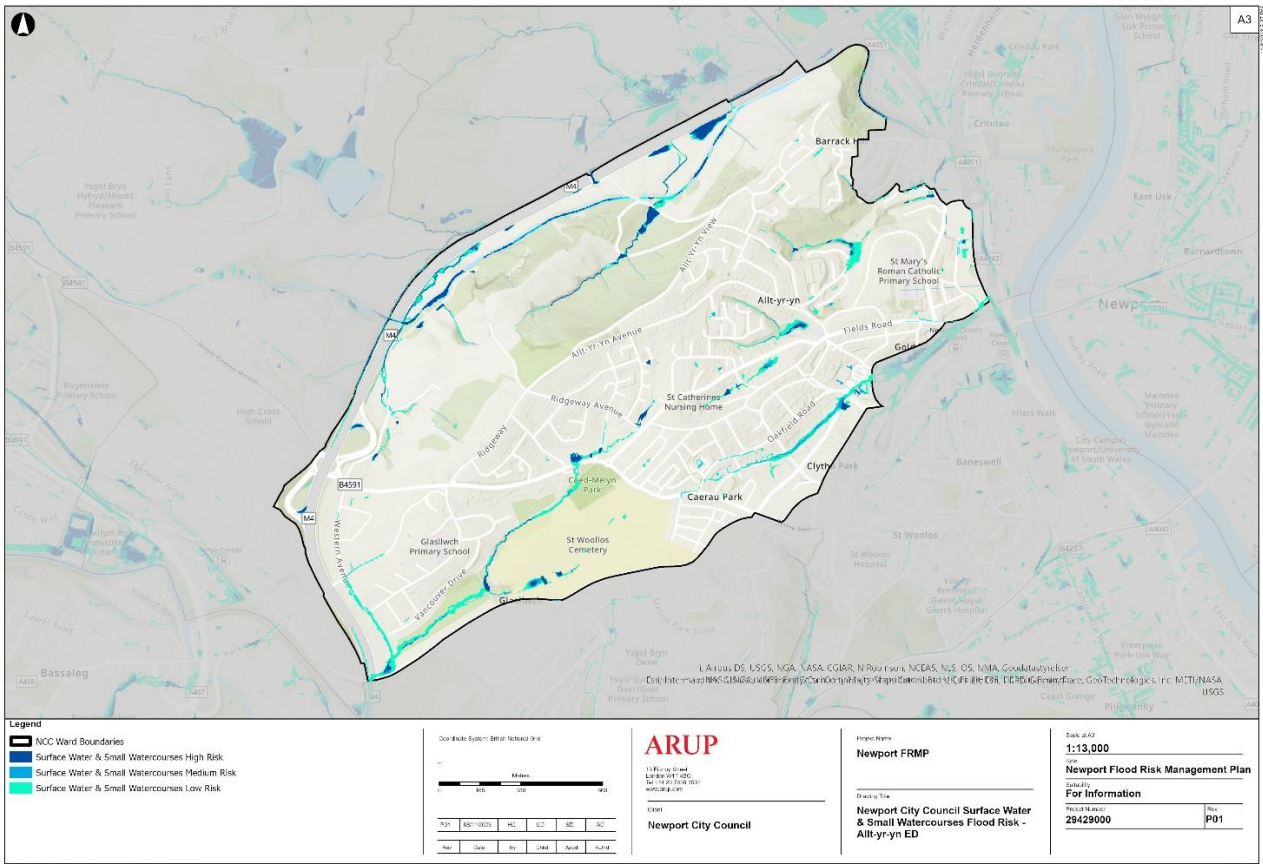


Figure 10 Allt-Yr-Yn surface water flood risk

¹ (Office of National Statistics, 2023)

6.4.2 Always

Always Ward is situated in the central part of NCC, to the east of Central Newport. It has a population of approximately 8,558¹ and an area of 1.76km², which is approximately 0.9% of the total area of Newport. The Ward gently slopes down towards the Great Western railway to the south; the M4 motorway to the north, and mainly consists of residential housing. There are four significant surface water flooding locations, with a high risk of surface water flooding within the ward boundary, these are areas adjacent to Ordinary Watercourses. There are no Main Rivers in this ward.

The majority of the flood risk incidents in Always Ward occur towards the west of the ward, however reported incidents are sparsely spread throughout. The incidents commonly impact Chepstow Road (B4237) and Somerton Road, Gibbs Road, Lliswerry Park and Ringland Circle. The risk mostly comprises of surface water flooding caused by a blocked inlet grid on a culverted ordinary watercourse. Due to the nature of the flood risk events, the measures taken were to provide general maintenance on culverts/ highways, investigate sinkholes in CaRRiageways and liaise with riparian owners regarding maintenance/operation responsibilities.

For further, ward specific information refer to Storymap saved here: [Always](#)

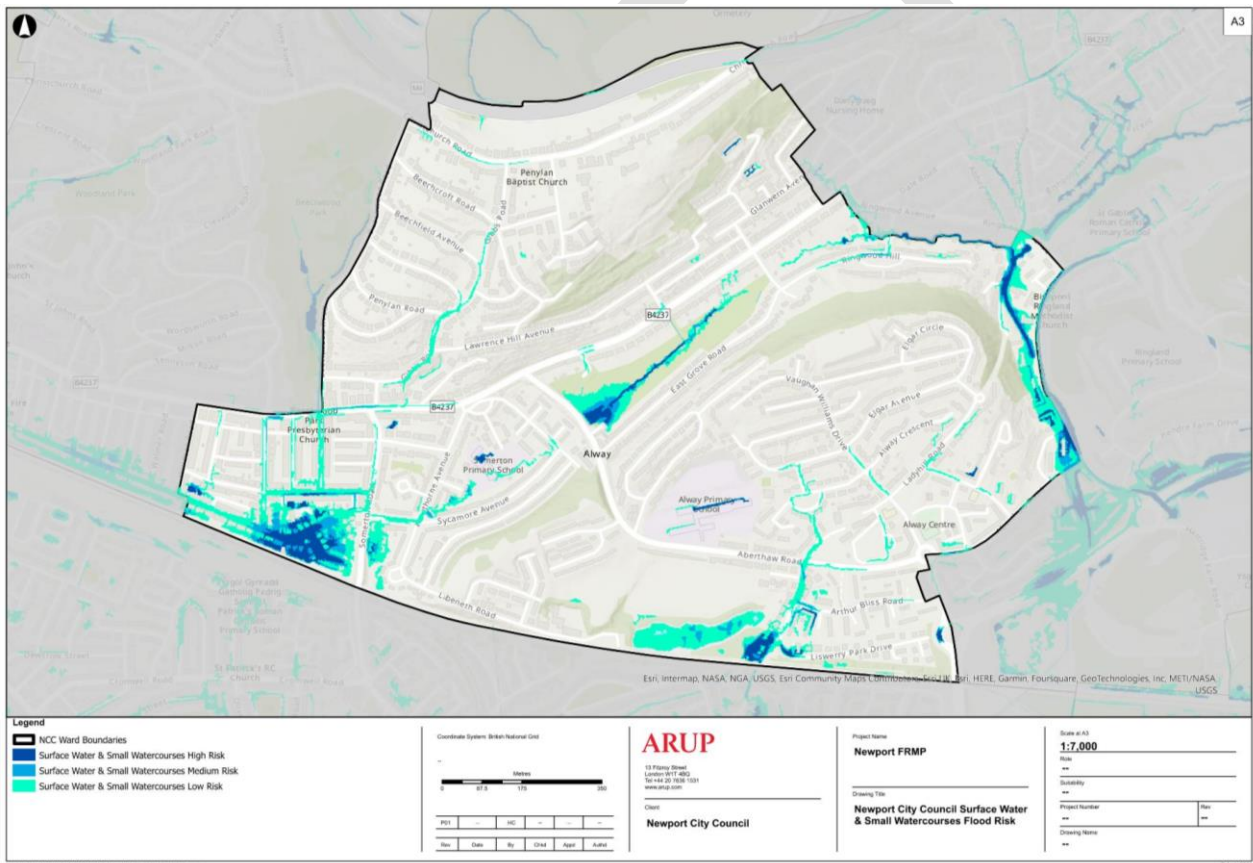


Figure 11 Always surface water flood risk

6.4.3 Beechwood

Beechwood Ward is situated in inner Newport, to the east of the town centre. It has a population of approximately 7,660¹ and an area of 1.52km², which is approximately 0.8% of the total area of Newport. The ward steeply slopes north to south and mainly consists of housing with Beechwood park to the centre of the ward. The Main River Usk borders the north of this ward.

Historic flood risk incidents in Beechwood have been reported across the ward, primarily following along minor highway routes such as Conway Road, St Julian's Road, Cotman Close and Woodland Road. These were incidents of surface water flash flooding. Due to the nature of the incidents the measures engaged were to provide culvert and highway drainage maintenance where necessary. Reduction in sewer flooding incidents is being explored through liaison with DCWW on opportunities.

For further, ward specific information refer to Storymap saved here: **Beechwood**

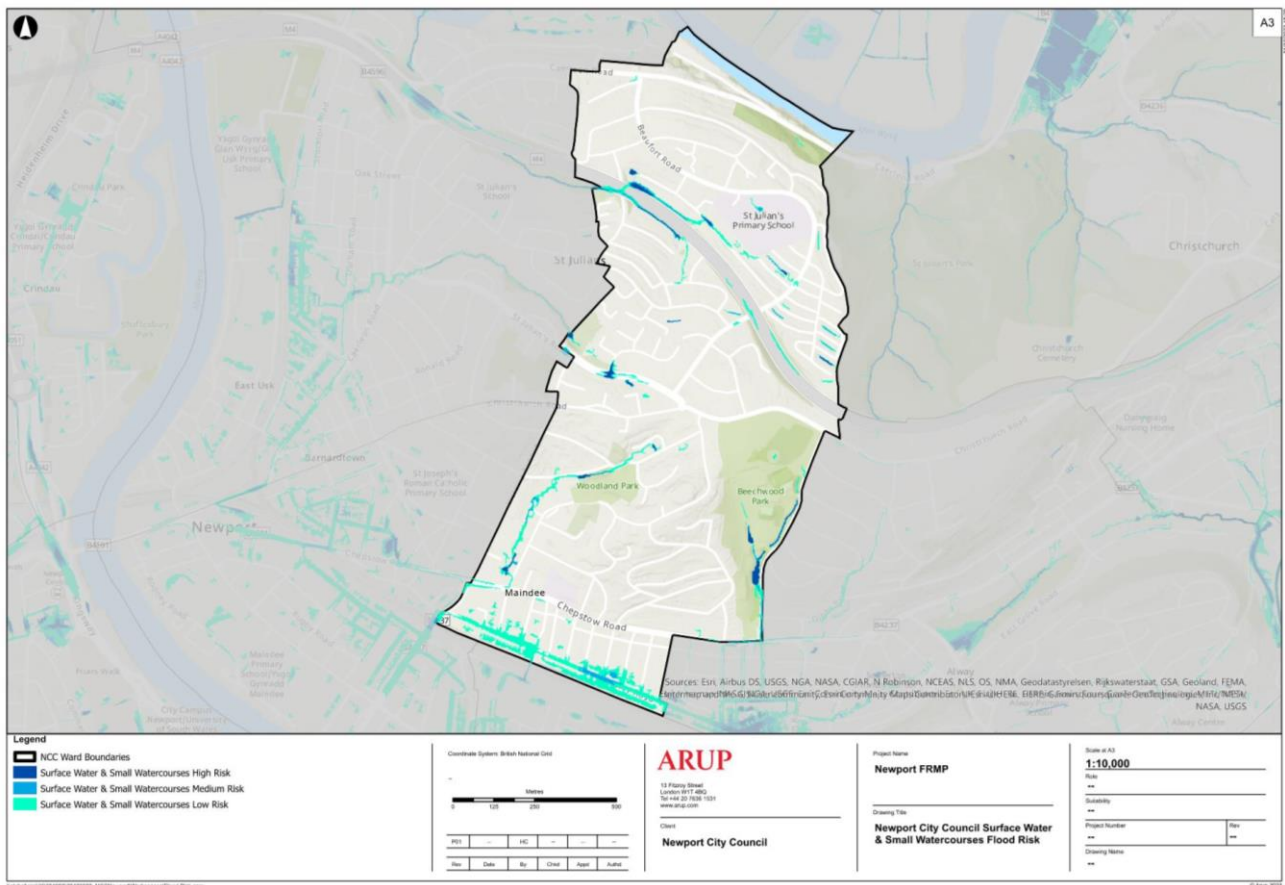


Figure 12 Beechwood surface water flood risk

6.4.4 Bettws

Bettws Ward is situated to the North of NCC, on the border with Caerphilly and Torfaen . It has a population of approximately 8,296¹ and an area of 5.14km², which is approximately 2.7% of the total area of Newport. The ward slopes from north-west to south-east, with predominantly residential housing. There are some commercial buildings within the valley floor. Surrounding this developed area, the land-use is composed of forestry, livestock and arable fields. There are no Main Rivers in this ward.

The available data indicates medium/high risk flooding from ordinary watercourses including the Malpas Brook running down the east edge of the ward, and a large flood storage area to the south of the ward. The majority of reported flood risk incidents in Bettws Ward occur within the central and eastern regions, primarily following along more minor routes such as, Bettws Lane, Monnow Way, Meon Close, Tone Close and Darent Road. There are a number of planned works being undertaken by NCC in this ward to address the risk including watercourse maintenance at Monnow Way and the monitoring/repair of existing drainage across the ward. Across Bettws, NCC is planning to investigate and promote the application of sustainable land management.

In 2022/2023 Desilting works were CaRRied out in Bettws Lane, further works will be undertaken to alleviate the issue.

For further, ward specific information refer to Storymap saved here: [Bettws](#)

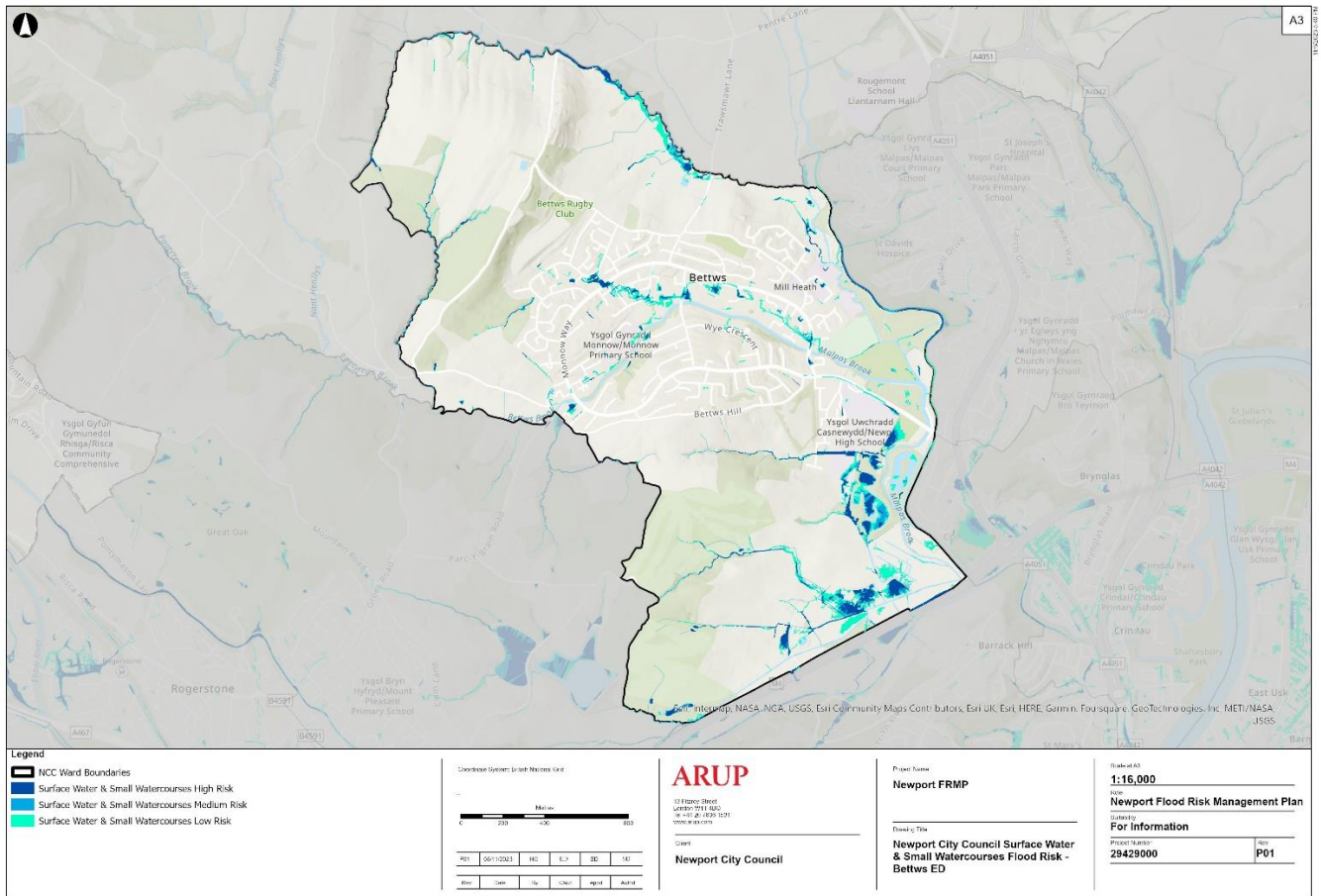


Figure 13 Bettws surface water flood risk

6.4.5 Bishton and Langstone

Bishton and Langstone Ward is situated along the north-eastern border of NCC, and north-east of Central Newport. It has a population of 6,954¹ and an area of 37.23 km², which is approximately 19.56% of the total area of Newport. A hillslope ridge dominates the north of the ward, steeply sloping south to a valley containing residential properties. There is a short length of the River Usk in this ward.

The majority of the flood risk incidents in Bishton and Langstone occur towards the west of the ward evenly distributed between a mixture of major highway routes such as Chepstow Road (A48) and more minor highway routes such as Magor Road (B4245), Cats Ash Road, Birch Grove and Waltwood Road. These all occurred because of surface water/ culvert flooding from blocked trash screens. During 2021/22 a CCTV survey and desilting works were carried out at Magor Road culvert.

For further, ward specific information refer to Storymap saved here: **Bishton and Langstone**

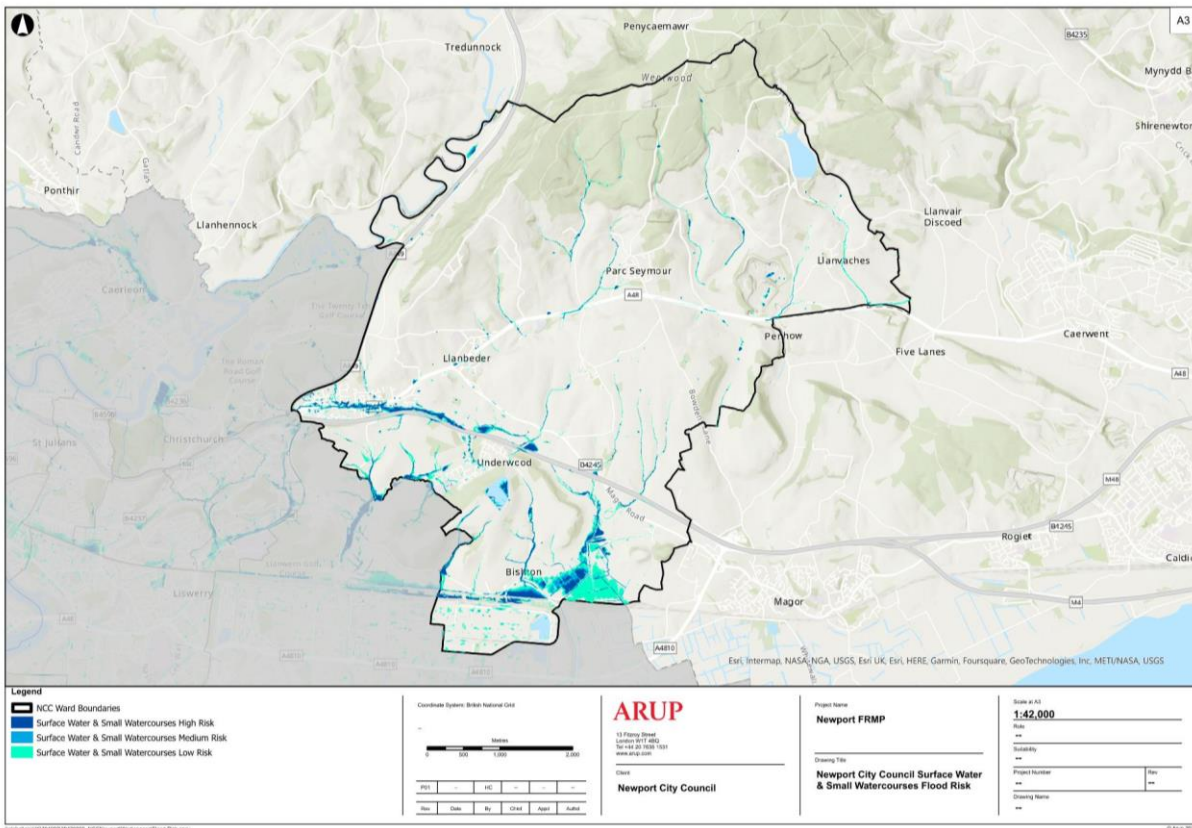


Figure 14 Bishton and Langstone surface water flood risk

6.4.6 Caerleon

Caerleon Ward is situated along the northern border of NCC, to the north-east of Central Newport. The suburban village has a population of approximately 7,971¹ and an area of 14.53km², which is approximately 7.6% of the total area of Newport. The ward consists of two significant hills, to the west and east, which steeply slope down to the valley floor in the centre of Caerleon which is comprised of residential and commercial buildings. The River Usk and Afon Lwyd flow through the centre of the ward to their confluence west of the Celtic Manor.

The majority of the reported flood risk incidents in Caerleon occur within the central regions of the ward evenly dispersed between a mixture of both major routes such as Ponthir Road (B4236), Castle Street and smaller roads such as Isca Road, Roman Reach and Lodge Hill. The surface water flood maps show flooding potentially affecting roads and properties which can be broadly clustered into three main areas towards the centre of the ward to the west of the River Usk. In response to the flooding incidents, NCC is investigating surface water sewer disconnection opportunities at a number of locations including Roman Road, Castle Street, High Street, Castle Close, Tram Road. Additional actions include installation of new gully pots, excavation and repair of pipe networks and investigation of culvert inlets where necessary.

Eight residential properties were internally flooded at The Hawthorns during Storm Dennis. This was primarily caused by the Afon Llwyd bursting it's banks. NRW are aware of the issue at this location.

For further, ward specific information refer to Storymap saved here: [Caerleon](#)

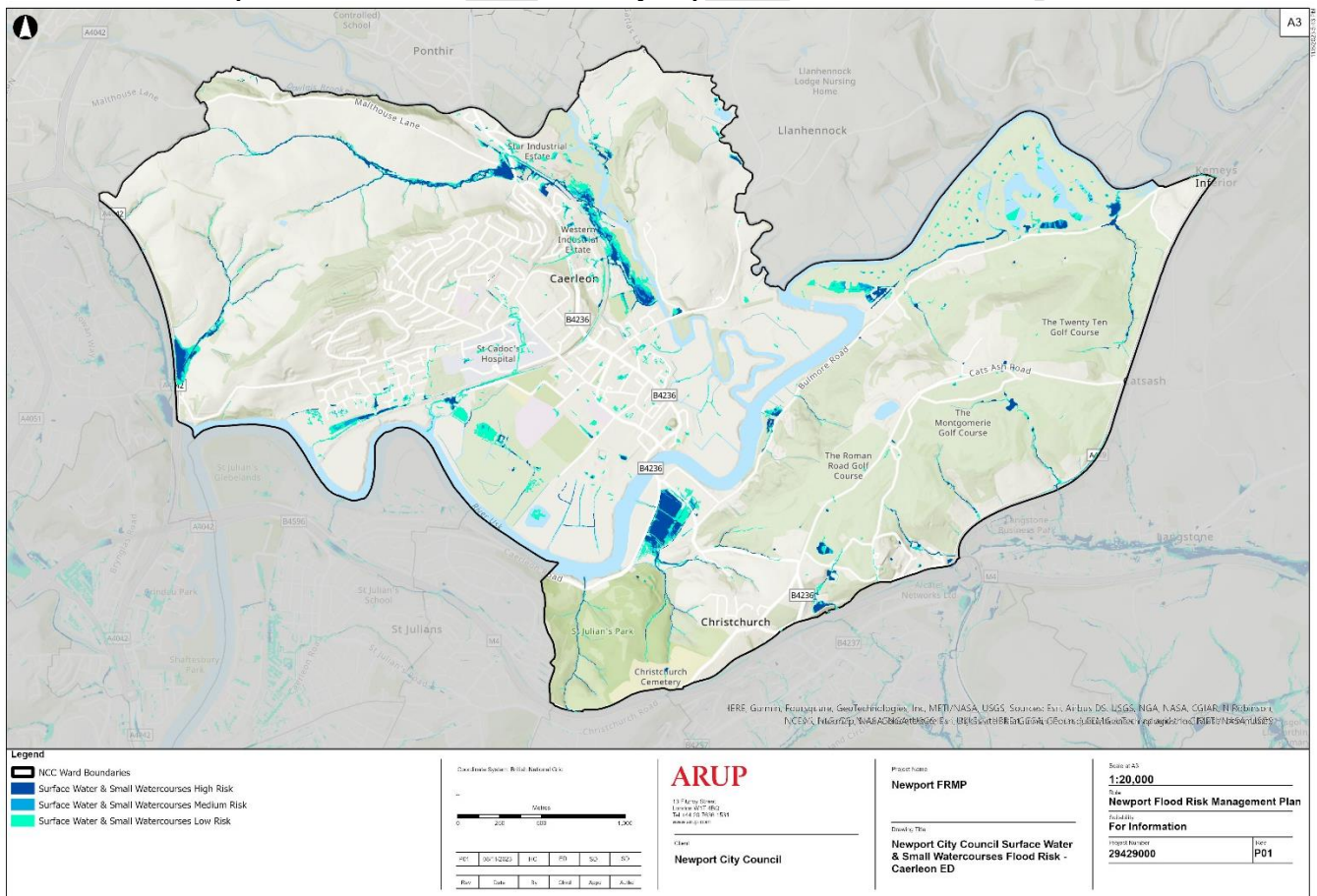


Figure 15 Caerleon surface water flood risk

6.4.7 Gaer

Gaer Ward is situated in the centre of Newport. It has a population of approximately 8,980² and an area of 2.8 km², which is approximately 1.5% of the total area of Newport. The ward gently slopes from north to south, with residential housing concentrated to the east of the ward. The hillside catchment is drained by the Ebbw River which flows around hillside to the west of the ward.

The majority of reported flood incidents in Gaer ward are located to the north of the ward and are most commonly found near major highways and watercourses, occurring multiple times on Cardiff Road (B4237), St Brides Crescent, Gaer Road, Gaer Pond and Maesglas Close. Due to the nature of the floods, the most frequent flood intervention was to investigate/monitor culverts and provide periodic maintenance, for example unblocking highway gullies.

During 2021/22 new pumps were installed at Gaer Vale pumping station and during 2022/23 a CCTV survey and desilting works were CaRRied out at Gaer Pond culvert to Cardiff Road.

For further, ward specific information refer to Storymap saved here [Gaer](#)

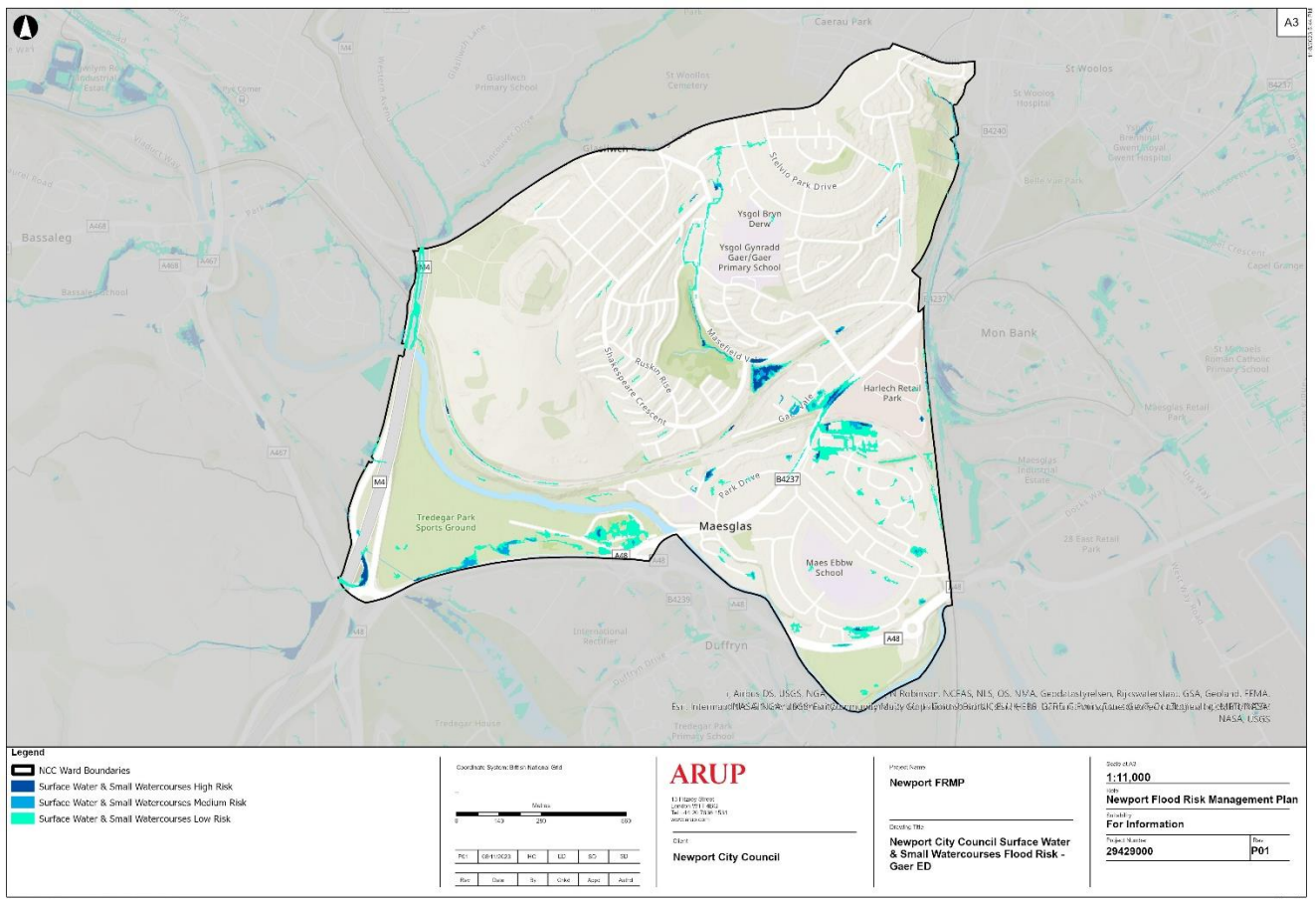


Figure 16 Gaer surface water flood risk

² (Office of National Statistics, 2023)

6.4.8 Graig

Graig Ward is situated along the northwest border of Newport,. It has a population of 5,256¹ and an area of 14.34 km², which is approximately 7.5% of the total area of Newport. The ward consists of a hill to the north, which steeply slopes down to the valley floor, west to east. There is limited development within this ward, consisting of arable and livestock fields, however there is some housing concentrated to the east of the ward. The Main River Ebbw runs down the east boundary of this ward and the river Rhywney runs down the western boundary.

The majority of reported flood incidents in Graig are located towards the east of the ward mostly following along major highways, these areas include Park View, Bassaleg, Forge Road/Lane. More sparsely located incidents, occurred towards the west of the ward, frequently found along watercourses towards Rhiwderin. These occur because of surface water flooding from trash blocking and collapsing pipes. To address the Ordinary Watercourse flooding liaison with riparian owners is proposed at Pye Corner alongside liaison with DCWW on opportunities. Further intended NCC actions across the ward include repairing collapsed pipe networks, desilting of the storm line and regular culvert maintenance.

A CCTV survey and desilting works were CaRRied out during 2022/23 to the culvert at Church Crescent to alleviate flooding. CCTV Survey was also CaRRied in Rhiwderin at from Springfield Lane at Sunnybank Farm which is riparian owned to alleviate flooding in the village.

For further, ward specific information refer to Storymap saved here: **Graig**

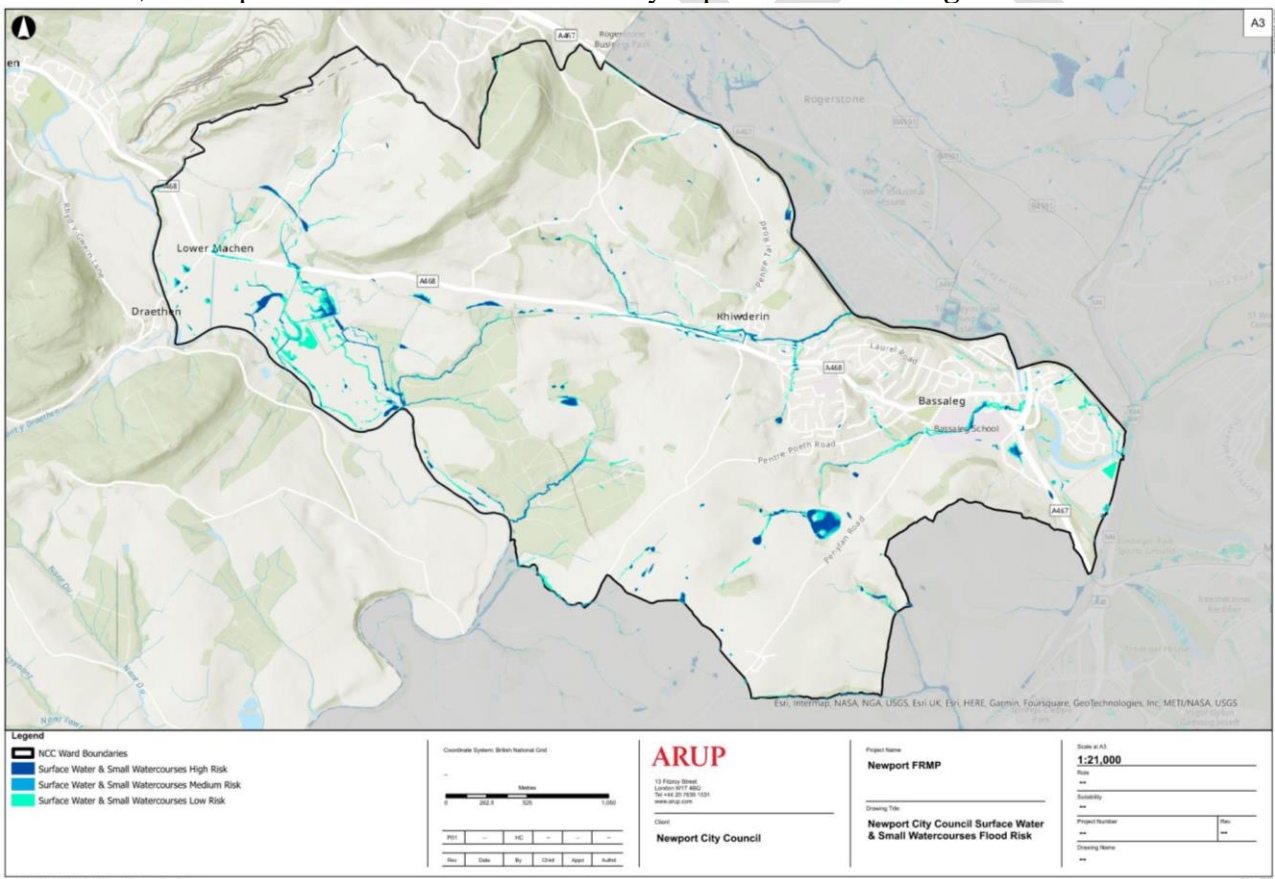


Figure 17 Graig surface water flood risk

6.4.9 Llanwern

Llanwern Ward is the largest ward and is situated along the southwest coast of NCC. It has a population of 3,2751 and an area of 52.83km², which is approximately 28% of the total area of Newport. Llanwern is mainly flat, apart from a rise in elevation along the northern ward boundary. The land use within the ward consists of a large industrial development, arable and livestock farmland. There are several Main Rivers in the ward; Monks' Ditch runs through the central west of the ward and Hundred Perches Reen runs through the central east of the ward. Other Main Rivers include Windmill, Ridings and Elver Pill Reen. Much of the ward falls within the Caldicot Level Internal Drainage District.

The areas that frequently flood include Station Road (Surface water flooding caused by natural exceedance of Monks' Ditch) and Langstone lane (Surface Water flooding and culvert flooding).

A business case is currently in progress for WG grant funding for a scheme to alleviate the surface water flooding at Station Road. Minor works have also been undertaken to improve the surface water drainage at Langstone Lane and Station Road. NRW have been involved in alleviating the issue at Monk's Ditch as it is the Main River.

For further, ward specific information refer to Storymap saved here: [Llanwern](#)

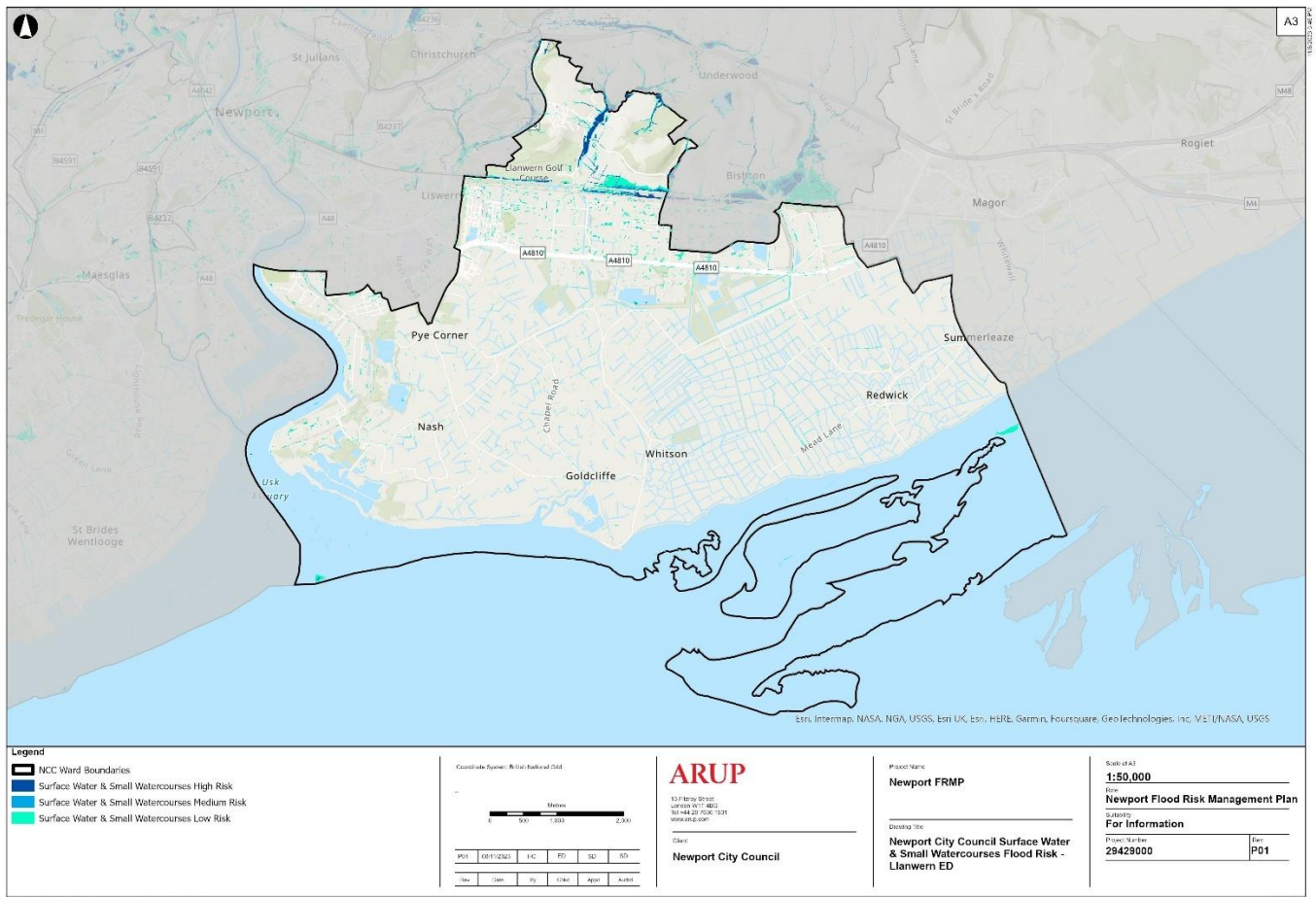


Figure 18 Llanwern surface water flood risk

6.4.10 Lliswerry

Lliswerry Ward occupies the southern edge of Central Newport. It has a population of 12,694¹ and an area of 18.59km², which is approximately 9.8% of the total area of Newport. The Ward is mainly flat, with limited variations in elevation, and consists of industrial, residential, and commercial developments. A large proportion of the wards in the south are rural. The Main Rivers consist of the River Usk which runs down the east boundary of the ward, Lliswerry Pill Reen and Great Spytty Reen which run east to west across the north of the ward. Some of the ward falls within the Caldicot Level drainage district.

The majority of flood risk incidents in Lliswerry occur along major roads for example Corporation Road, Stephenson Street and Somerton Road. However, more sparsely located incidents do occur throughout the entire ward on more minor routes such as Traston avenue and Stephenson Industrial Estate. Flooding at these locations is caused by combined highway and sewer issues. This is sometimes exacerbated by issues with the DCWW pumping station and treatment works at Nash. Due to the nature of the flood incidents, the measures implemented were to install and replace gully pots and investigate highway drainage and CaRRy out maintenance. To manage the flooding apportioned to the reen system, NCC is partnering with NRW to monitor and mitigate the risk.

During 2021/22 and 2022/23 extensive CCTV surveys and desilting works were CaRRied out to a culvert on Cromwell Road.

For further, ward specific information refer to Storymap saved here: [Lliswerry](#).

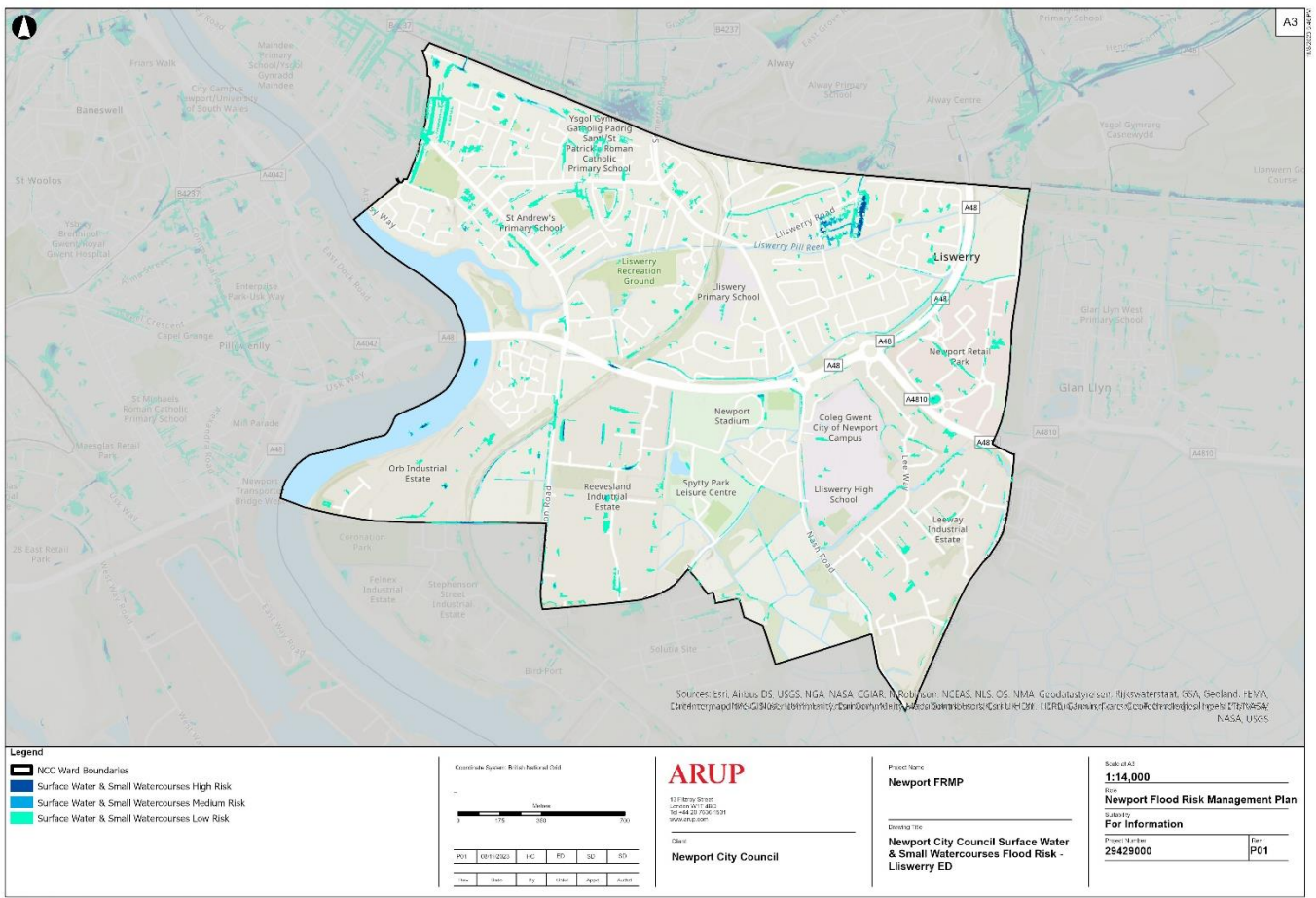


Figure 19 Lliswerry surface water flood risk

6.4.11 Malpas

Malpas Ward is situated along the northern border of NCC, to the north of Central Newport. It has a population of 7,603¹ and an area of 2.1 km², which is approximately 1.1% of the total area of Newport. The ward gently slopes southwards and consists of predominately housing. The Main River Usk borders the southeast of the ward for a short length.

The majority of the flood risk incidents in Malpas are clustered around Malpas Road (A4051). However, more sparsely located incidents do occur throughout the entire ward on more minor routes such as, surface water/ culvert flash flooding on Larch Grove, Pilton Vale, Almond Drive, Horrocks Close and Pillmawr Lane. The surface water flood maps show two main clusters of issues around Malpas in the centre/east of the ward adjacent to Rowan Way. Due to the nature of the flood incidents the actions taken were to monitor local drainage system and excavate blocked drains. In areas particularly susceptible to sewer flooding, NCC are liaising with DCWW regarding the management of the risk.

During 2021/22 a CCTV survey and root cutting works were CaRRied out on the surface water drainage at Larch Grove to alleviate flooding to properties. As of 2023, DCWW resolved the issue at the location. NCC are looking into funding for CCTV investigations and pumping station repairs located at Old Green North

For further, ward specific information refer to Storymap saved here: [Malpas](#)

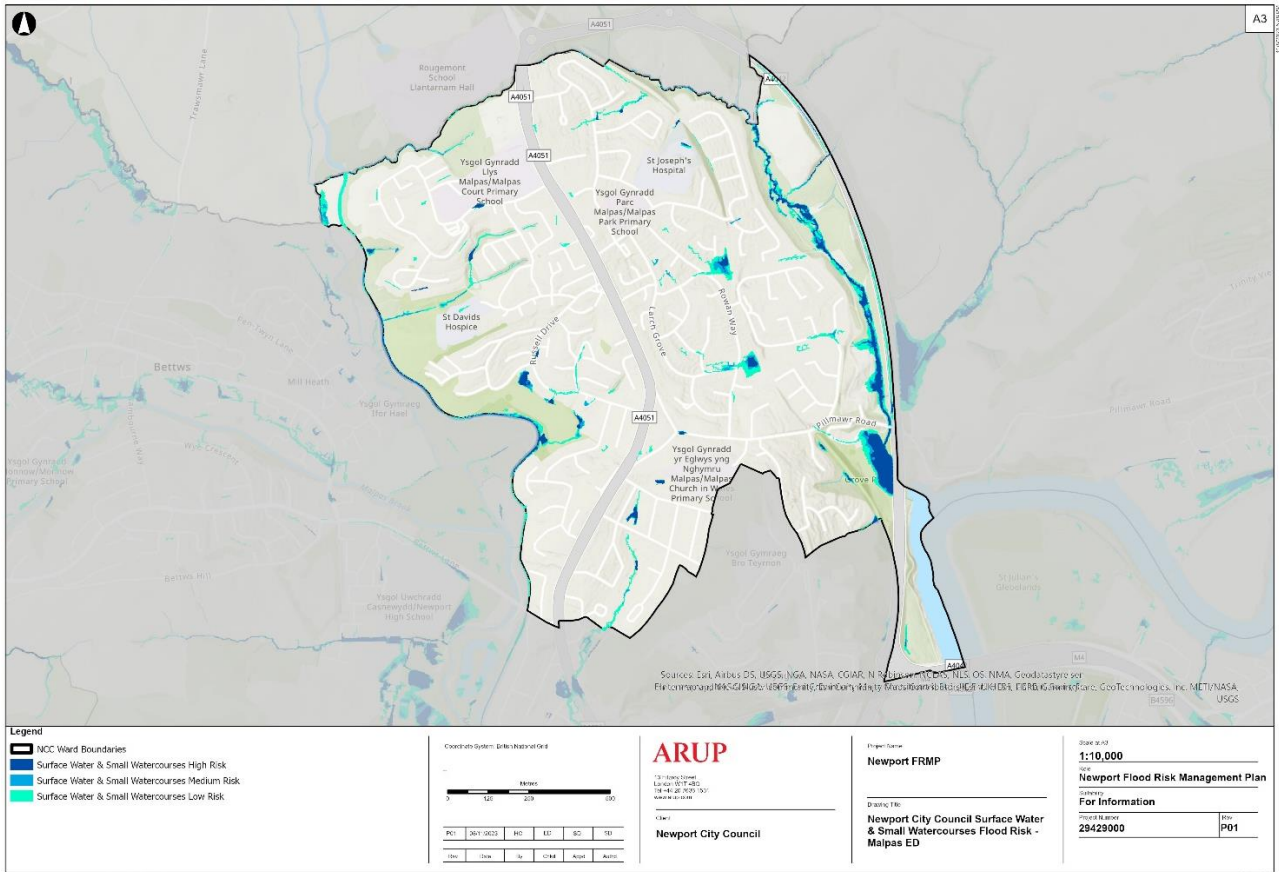


Figure 20 Malpas surface water flood risk

6.4.12 Pillgwenlly

Pillgwenlly Ward is situated in the central part of NCC, to the immediate south of Central Newport. It has a population of 8,116¹ and an area of 6.43 km², which is approximately 3.4% of the total area of Newport. The Ward is flat and contains industrial, commercial and some residential properties. The Main River Ebbw flows along the boundary of the ward, to the south-west and the Usk to the east.

The majority of the reported flood risk incidents in Pillgwenlly are clustered towards the north of the ward following major highways, such as Usk Way (A4042) which experienced a storm pumping station issue) and Commercial Road. However more sparsely located incidents did occur throughout the ward on more minor routes such as Temple Street, Carlisle Street and Lime Close. The surface water flood maps show isolated areas of low-risk flooding with one a few small areas of high-risk flooding. The main areas of properties affected is in the north of the ward in the vicinity of the Enterprise Park and is low risk only. The proposed actions by NCC include investigation of highways flooding alongside replacement of damaged pipework and review of maintenance schedules

NCC have recently undertaken works to clear the culvert under West Way Road and contacted the riparian landowners in the area to undertake clearance of watercourses to alleviate flooding at the rear of Mendalgief Road. Ongoing works at West Way Road will have to continue due to land ownership issues.

For further, ward specific information refer to Storymap saved here: [Pillgwenlly](#)

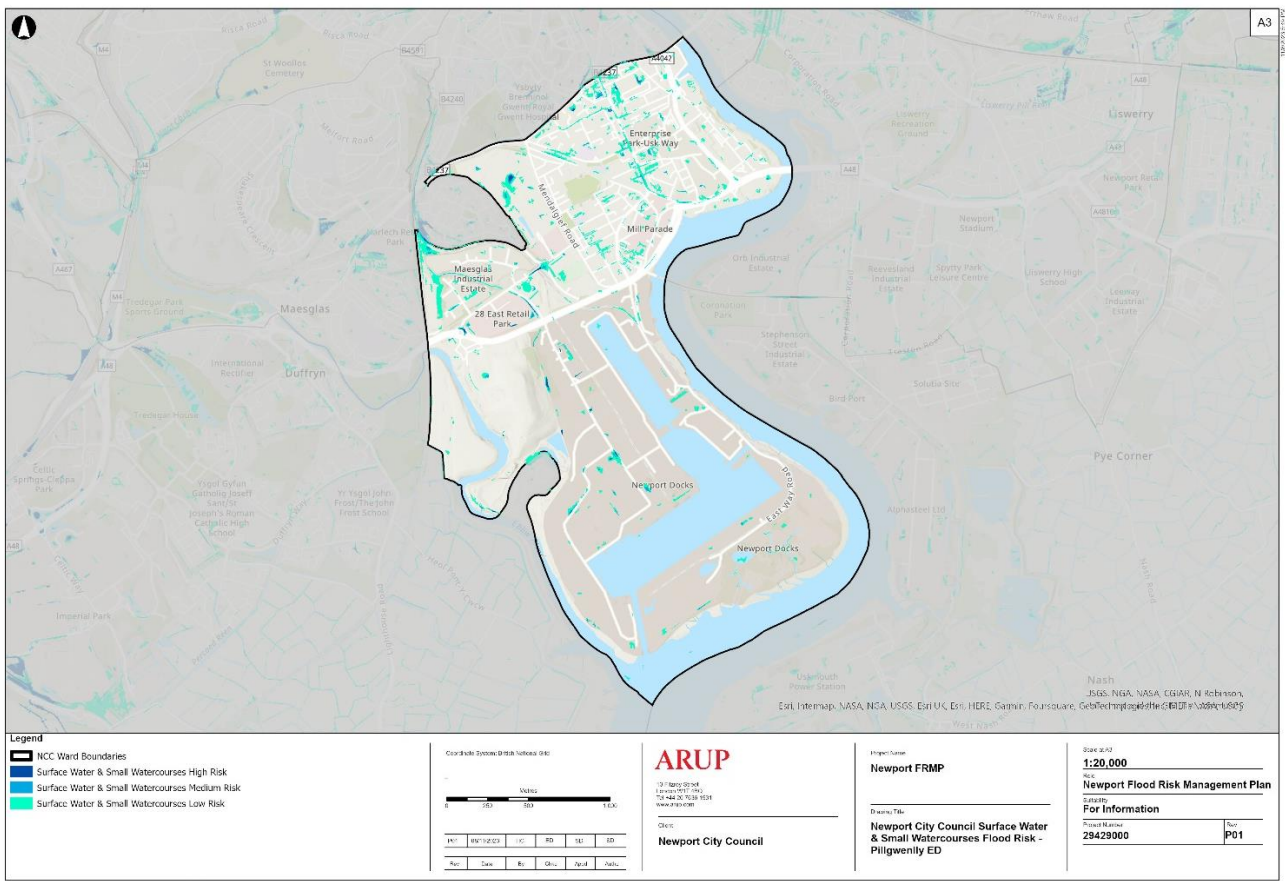


Figure 21 Pillgwenlly surface water flood risk

6.4.13 Ringland

Ringland Ward is situated in Central Newport. It has a population of 8,304¹ and an area of 2.44km², which is approximately 1.3% of the total area of Newport. The Ward is relatively flat, slightly sloping north to south, and contains a high concentration of residential properties. There are no Main Rivers in Ringland.

The available data indicates some areas of high-risk flooding from ordinary watercourses in the south and east of the ward. Higher risk flooding problems may also occur in isolated locations, for example due to culvert restrictions. The majority of flood risk incidents in Ringland are clustered around Chepstow Road (B4237) and Ringland Way SDR (A48), with a large proportion of incidents sparsely located throughout the ward on roads such as Playford Crescent, Cunningham Road and Bishpool Avenue. The surface water flood maps show three main clusters of issues spread throughout the ward: near Ringland Way (the majority of which is under the remit of Newport City Homes) roundabout in the south, Handel Close in the east and Howe Circle in the north. There are larger patches of high-risk flooding in the vicinity of Handel Close and Ringland Way, with Howe Circle in the north being a lower risk. These incidents of surface water flooding occurred due to watercourse blockages and natural exceedance flooding. Due to the nature of the flood incidents the actions taken were to monitor the Hartridge Farm surface water lagoon and regular culvert inlet investigation.

Regular maintenance of the lagoon at Hartridge Farm that leads to a NRW owned watercourse is undertaken by NCC twice a year.

For further, ward specific information refer to Storymap saved here: [Ringland](#)

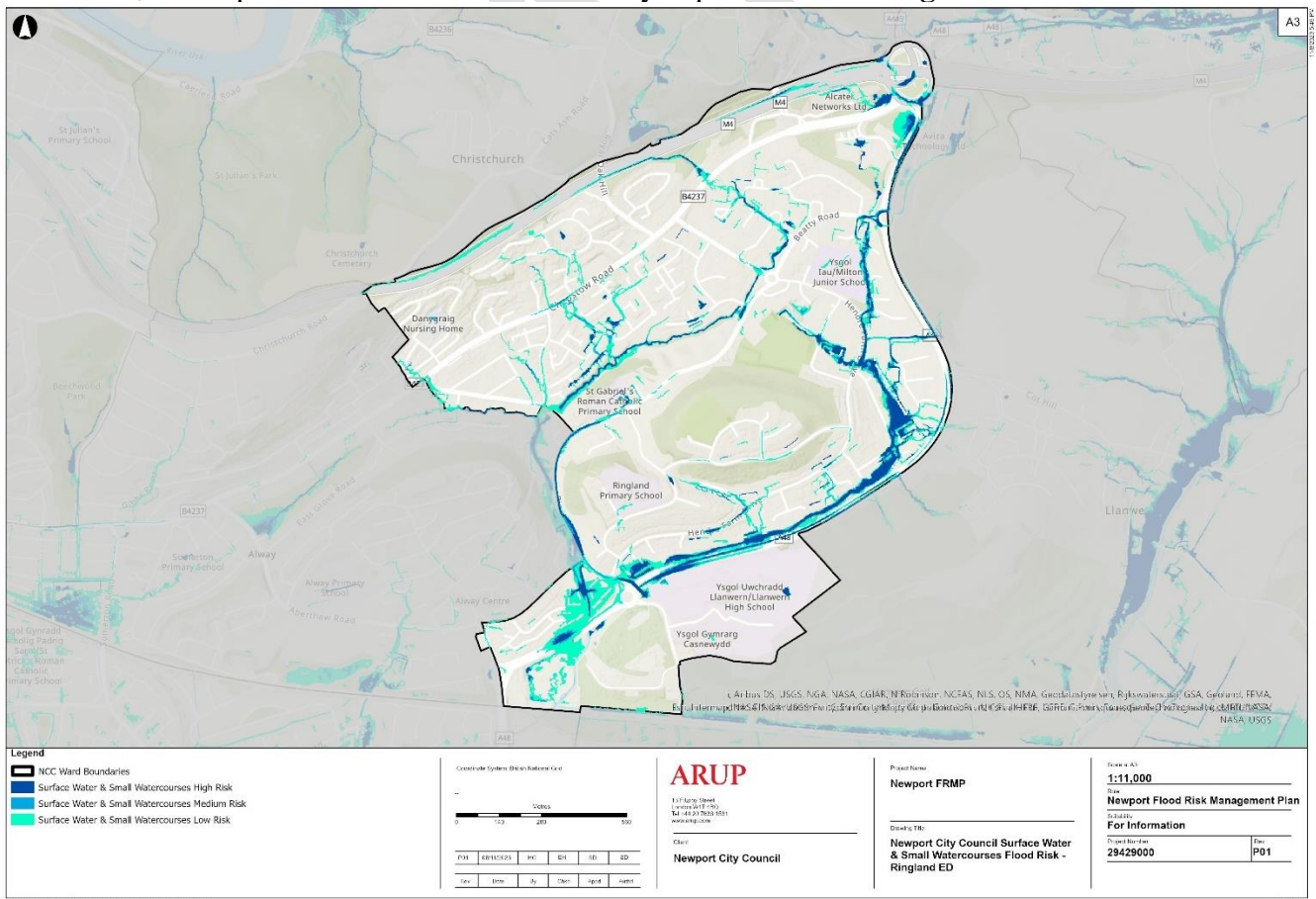


Figure 22 Ringland surface water flood risk

6.4.14 Rogerstone East

Rogerstone East Ward is situated alongside Rogerstone West/ North on the northern border of NCC, to the north-west of Central Newport. It has a population of 2,949¹ and an area of 0.9822km², which is approximately 0.52% of the total area of Newport. The ward steeply slopes down to the valley floor which consists of predominantly residential properties, with some areas of commercial use. The Main River Ebbw borders the west of the ward.

Flood mapping shows areas of high risk concentrated to the southwest of the ward towards Tregwilym Industrial Estate. The majority of the reported flood risk incidents in Rogerstone East are situated on High Cross Road, Cefn Road, Western Valley Road and Myrtle Drive – mostly due to surface water and culvert flooding. Due to the nature of the flood incidents the measures engaged are to monitor and investigate culvert and surface water drainage.

In 2021/2022, CCTV surveillance have been conducted and ongoing at High Cross Road, Cefn Road and Western Valley Road. NCC have ongoing maintenance at location adjacent to Myrtle Drive.

For further, ward specific information refer to Storymap saved here: **Rogerstone East**

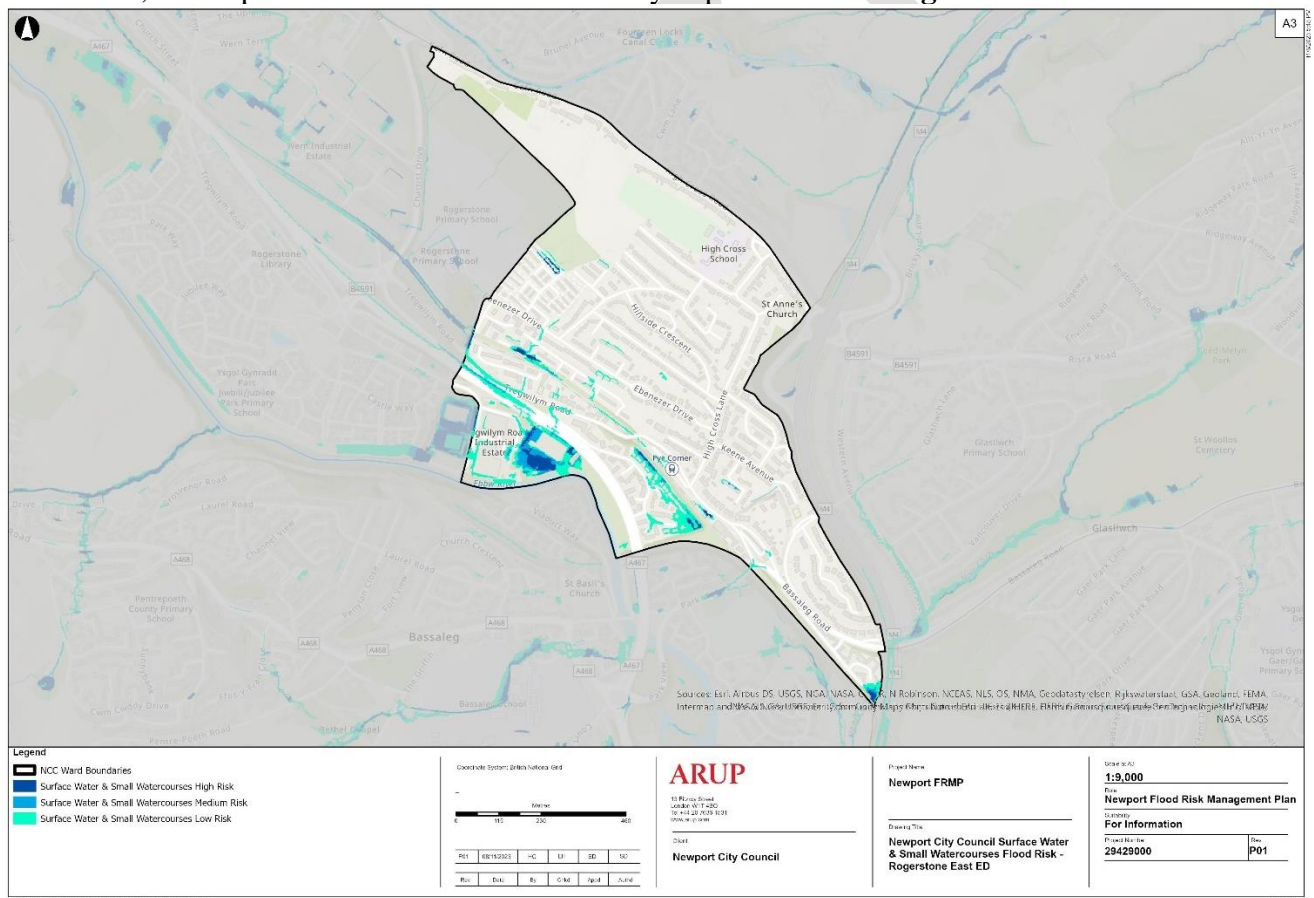


Figure 23 Rogerstone East surface water flood risk

6.4.15 Rogerstone North

Rogerstone North Ward is situated along the northern border of NCC, to the north-west of Central Newport. It has a population of 2,984¹ and an area of 1.482km², which is approximately 0.78% of the total area of Newport. The ward steeply slopes down to the valley floor which consists of predominantly residential properties, with some areas of commercial uses. The land use of the hillslope is livestock and arable farmland. The Main River Ebbw borders the west of the ward.

The majority of flood risk incidents in Rogerstone North occurred towards the south of the ward, mostly following along more minor routes such as Cefn Road. The proposed actions are to realign the local drainage system at required locations.

In 2021/2022 works were conducted at Cefn Road under the grant funding.

For further, ward specific information refer to Storymap saved here: **Rogerstone North**

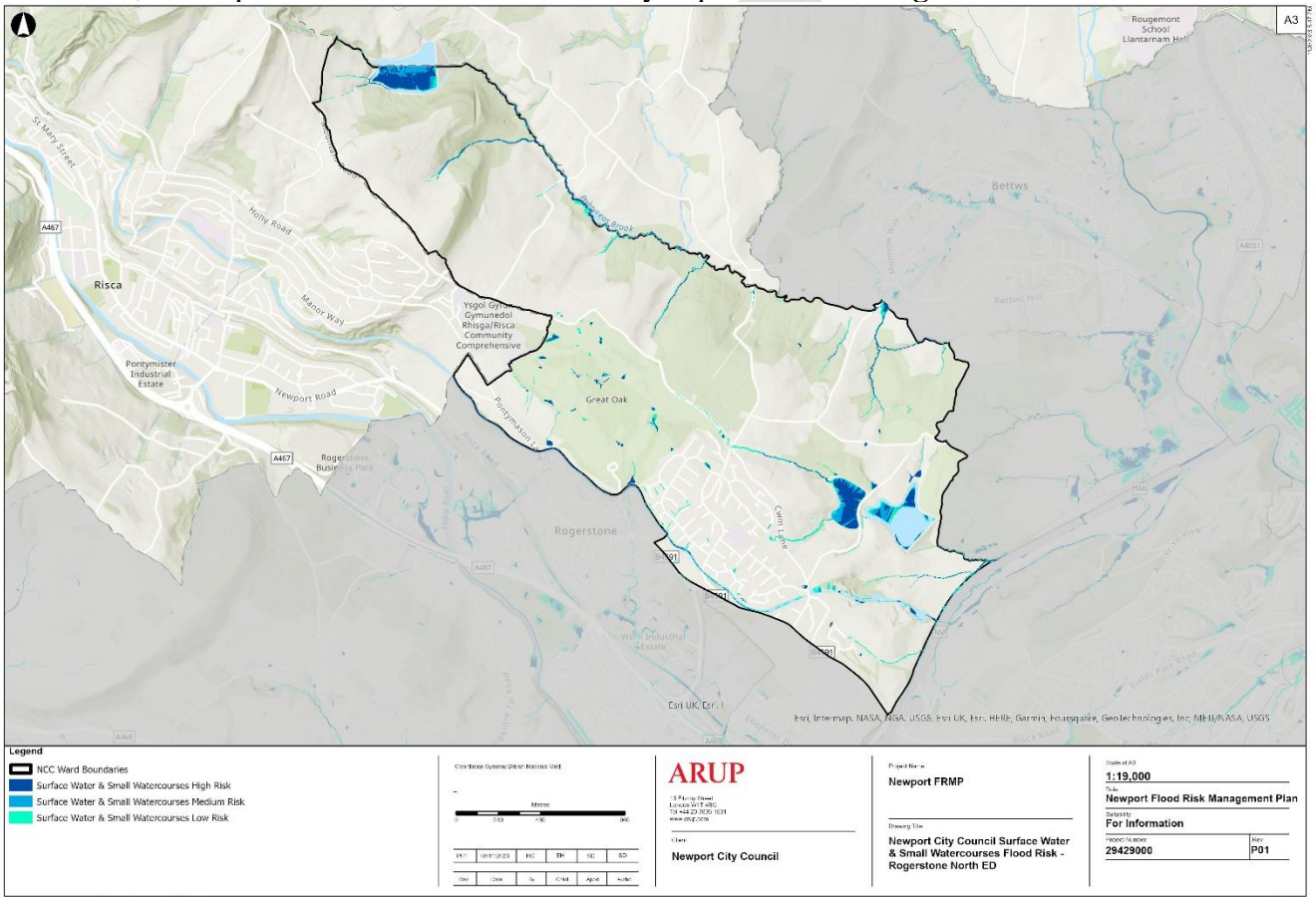


Figure 24 Rogerstone North surface water flood risk

6.4.16 Rogerstone West

Rogerstone Ward is situated along the northern border of NCC, to the north-west of Central Newport. It has a population of 7,965¹ and an area of 6.504km², which is approximately 3.4% of the total area of Newport. The ward steeply slopes down to the valley floor which consists of predominantly residential properties, with some areas of commercial uses. The Main River Ebbw borders the west of the ward.

The majority of the reported flood risk incidents in Rogerstone West are throughout the ward, commonly followed along minor roads including Cefn Road, The Uplands and Oak Tree Drive. The incidents have been reported as surface water flash flooding or as natural exceedance from Ordinary Watercourses. In response to the flood risk incidents the proposed NCC actions include monitoring and investigation of surface water drainage and culverts, relining of drainage systems .

In 2022/2023, works were undertaken at Cefn Road under grant funding.

For further, ward specific information refer to Storymap saved here: **Rogerstone West**

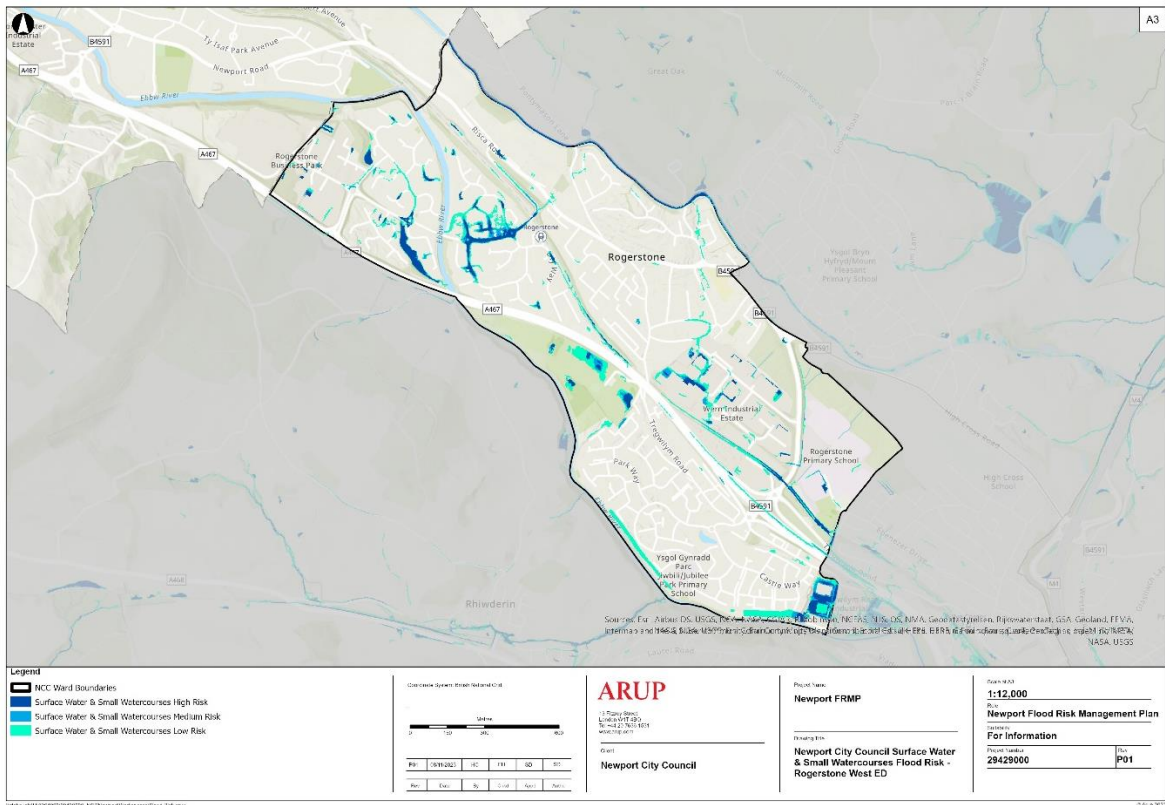


Figure 25 Rogerstone West surface water flood risk

6.4.17 Shaftesbury

Shaftesbury Ward is situated in the central part of NCC, to the immediate north of Central Newport. It has a population of 5,243¹ and an area of 1.76km², which is approximately 0.9% of the total area of Newport. Shaftesbury is a relatively flat ward with a gentle slope from north to south, while bordering the river Usk to the east. The ward consists of industrial, residential and commercial buildings.

The available data indicates limited areas of low-risk flooding associated with ordinary watercourses. Problems may occur in isolated locations, for example due to culvert restrictions. A high proportion of the reported flood incidents occur on major roads such as, Malpas Road (A4051) and Bryn Bevan. With incidents also reported on minor roads throughout the ward including Goodrich Crescent, Pant Road, Agincourt Street and Hoskins Street. The proposed NCC Actions include liaison with the DCWW (Dŵr Cymru Welsh Water) and provide maintenance on the highway and culvert drainage system on Malpas Road. Partnership working with NRW on surface water betterment is a proposed action on Hoskins/Wheeler Street and Agincourt Street/Argyle Street.

For further, ward specific information refer to Storymap saved here: [Shaftesbury](#)

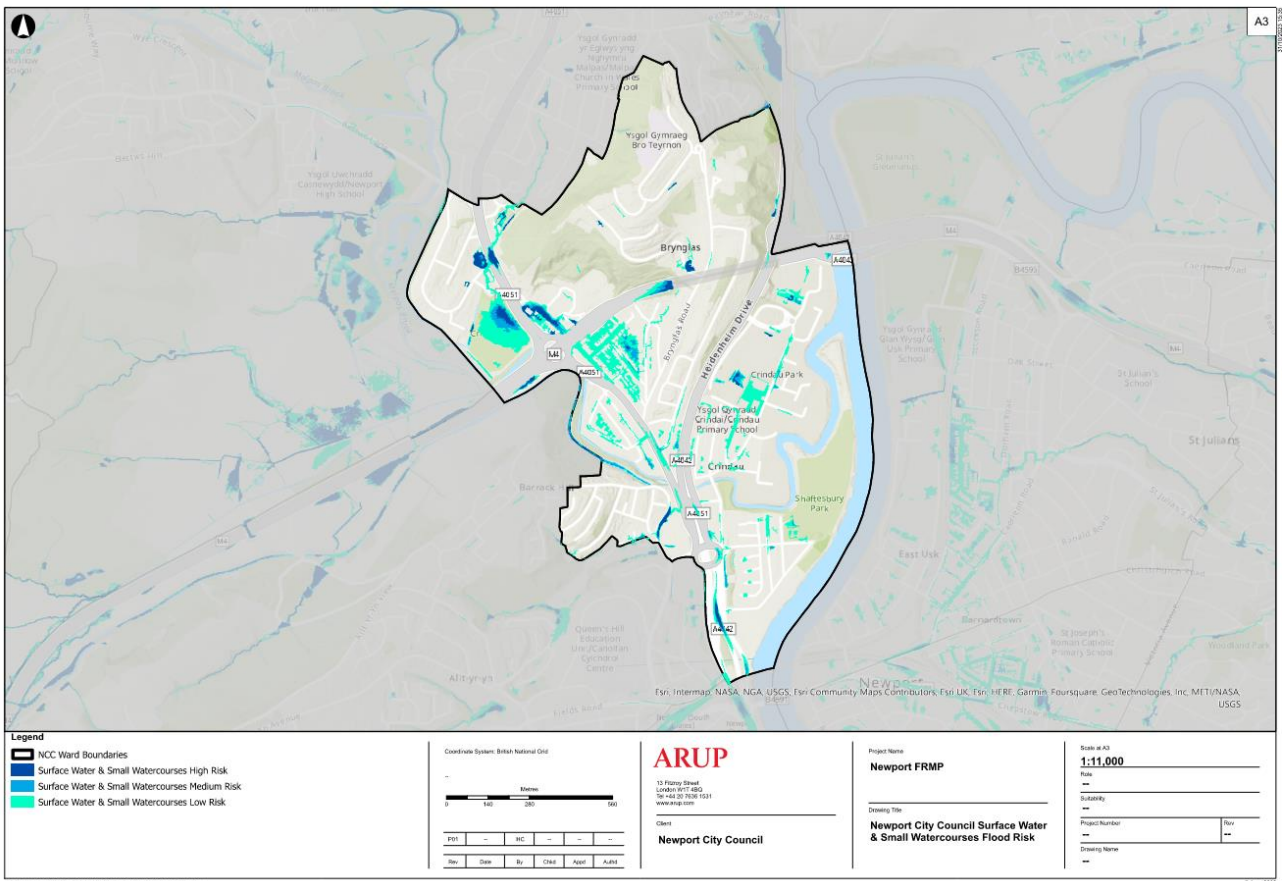


Figure 26 Shaftesbury surface water flood risk

6.4.18 St. Julian's

St. Julian's Ward is situated in the central part of NCC, to the immediate north-east of Central Newport. It has a population of 8,881¹ and an area of 2.18km², which is approximately 1.1% of the total area of Newport. St Julians borders the River Usk to the west and north. The ward gently slopes down, from east to west, and is heavily concentrated with mainly residential, and a few industrial developments.

There are two main clusters of surface water flooding in St Julians, one in the central area of the ward around of the ward around Rockfield Street, and the other area to the north on the M4. There are areas of medium/high risk within these areas which could affect properties or the major road network.

There was a major flood incident during December 2020 in which over sixty residential properties were internally flooded at Margaret Avenue, Orchard Street, Constance Street and Courtney Street. The reported cause of flooding was due to hydraulic overload of DCWW's combined sewer system. NCC will look to investigate opportunities where possible. NCC will monitor culverts and watercourses in the ward. Further Improvements between the Lotteries watercourse and the river outlet is required to alleviate flood risk at the location.

For further, ward specific information refer to Storymap saved here: [St Julian's](#)

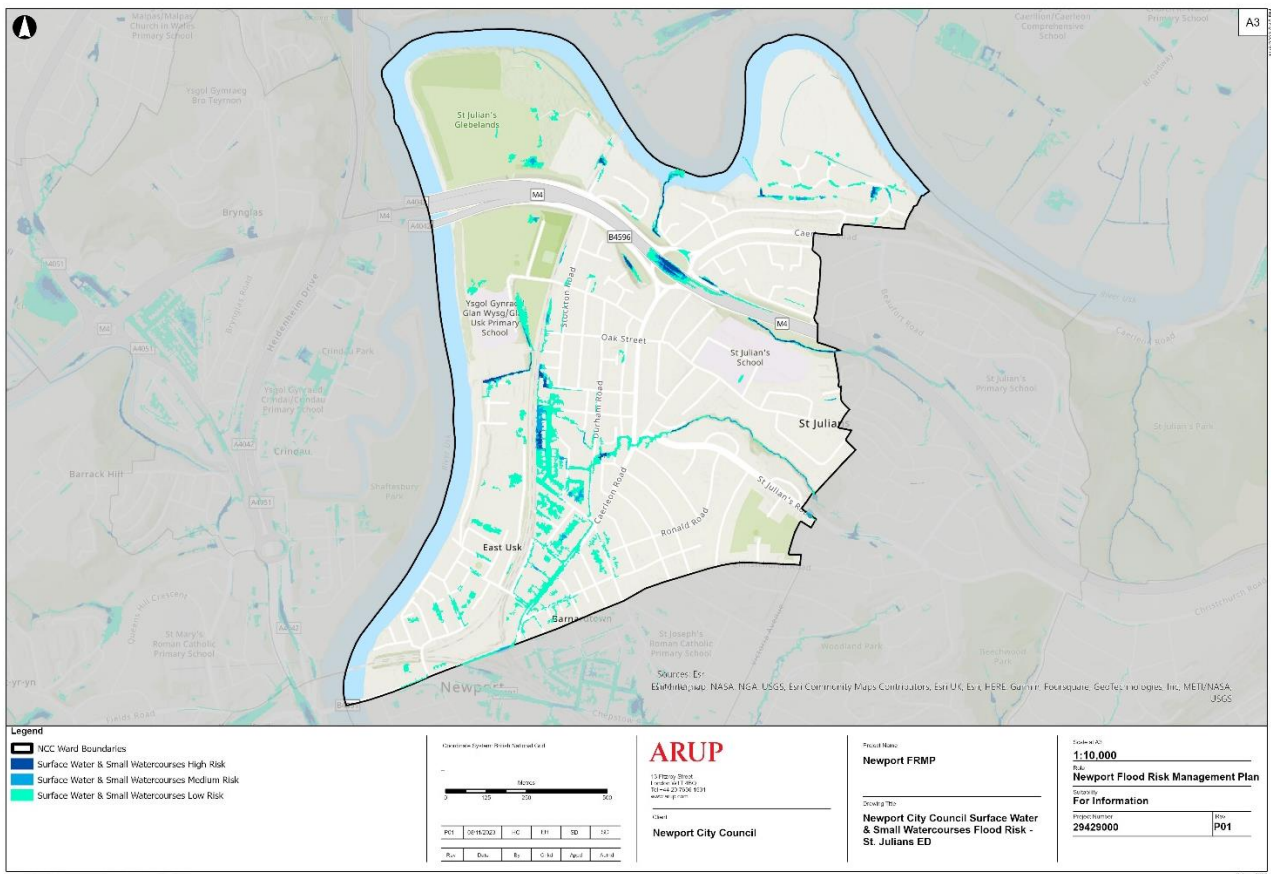


Figure 27 St Julian's surface water flood risk

6.4.19 Stow Hill

Stow Hill Ward is situated in the central part of NCC, covering a central area of Central Newport. It has a population of 6,497¹ and an area of 1.38km², which is approximately 0.7% of the total area of Newport. Stow Hill has a small area of raised elevation in the centre of the ward. The ward borders the River Usk to the east, and mainly consists of residential, commercial and industrial developments.

There is one main area of surface water flooding in Stow Hill in the north of the ward near Cambrian Road. This area shows mainly medium and high risk with some properties and roads affected. The majority of the reported flood risk incidents in Stow Hill Ward occur in large clusters at various locations including Queensway, Kingsway (A4042), Usk Way, George Street and Cardiff Road. The reported cause of these was recorded as extensive flooding, caused by natural exceedance of Ordinary Watercourses, perpetuated by a storm pumping station issue. NCC proposed actions to address this risk include investigation into the existing drainage arrangement along Queensway in liaison with DCWW and the monitoring/repair of drainage across Kingsway and Friars Field.

During December 2020 six business properties at Skinner Street were internally flooded due to hydraulic overload of DCWW’s combined sewer. NCC will ensure gully cleansing is regularly CaRRied out at this location.

During 2021/22 works were undertaken to refurbish Kingsway Pumping Station. 2021/2022 CCTV works and repairs to pipework were conducted due to incomplete works from development of area located at Kingsway.

For further, ward specific information refer to Storymap saved here: **Stow Hill**

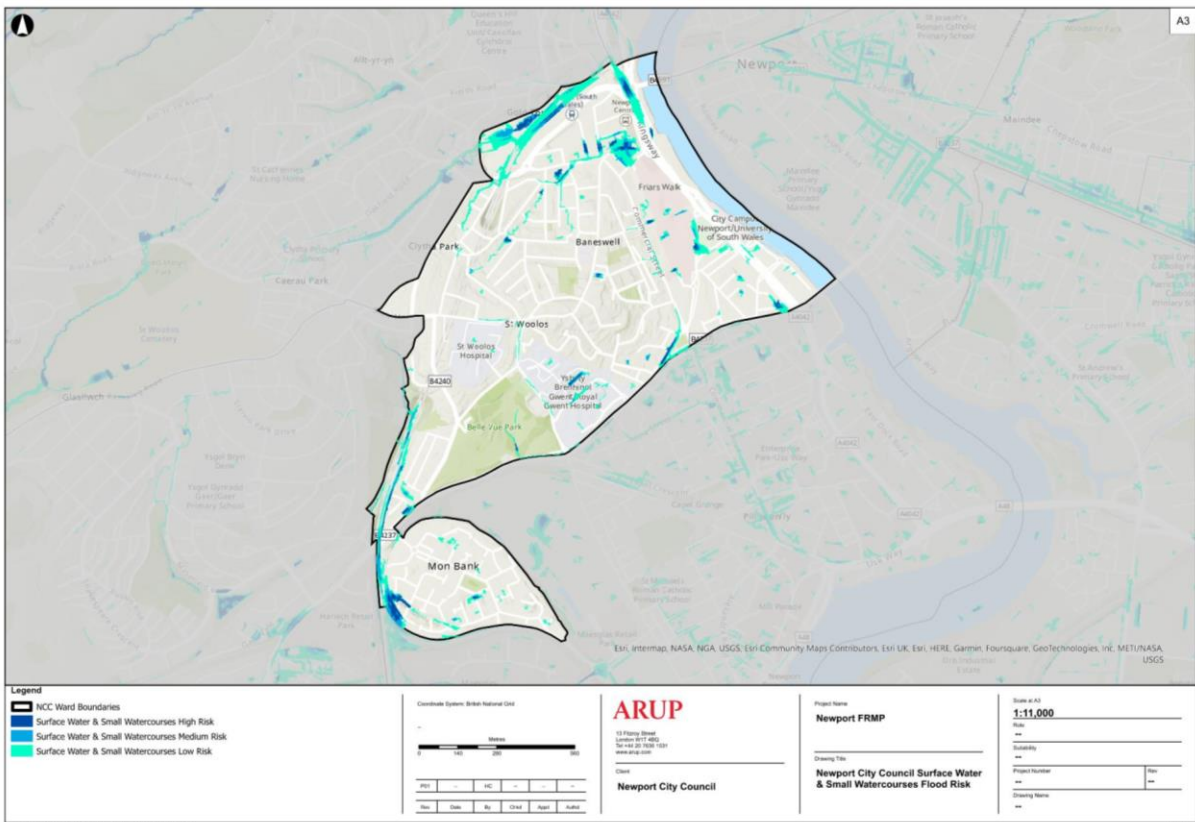


Figure 28 Stow Hill surface water flood risk

6.4.20 Tredegar Park and Marshfield

Tredegar Park and Marshfield Ward is situated in the central part of NCC, to the south-west of Central Newport. It has a population of 11,875¹ and an area of 37.23km², which is approximately 19.6% of the total area of Newport. The Tredegar Park area of the Ward is relatively flat, whilst the Marshfield region gently slopes north to south and consists of livestock and arable farmland. The ward is comprised of residential properties, industrial developments to the northeast of the ward and several open green spaces. The Main River Ebbw borders it in the north and the Main River Pontygwew Reen flows through the north and east of the ward. Much of the ward is within the Wentlooge Level drainage district.

There are three clusters of issues related to surface water flooding in the centre of Tredegar Park however they are generally low risk with small areas of medium and high risk. The majority of the reported flood risk incidents in Tredegar Park and Marshfield occurred towards the west of the ward, commonly following along major highway routes such as, Cardiff Road (A48) and Peterstone (B4329). The flood actions proposed for the ward include the management of the flood risk from reens through working in partnership with the IDD/NRW. And establishing a local flood action group in addition to repairing and maintaining the drainage networks in areas with reports of surface water flooding. As of 2023, this has been completed.

During 2022/23 a CCTV survey and silt removal works were carried out to the Docks Feeder Culvert at Cardiff Road (A48). The structural integrity of the culvert was checked and an obstruction removed. Further works required at Cardiff Road (A48) due to defect in the work carried out previously on the roundabout. In 2022/2023, the pumping station located at Peterstone was resolved and transferred to DCWW mains system.

For further, ward specific information refer to Storymap saved here: **Tredegar Park and Marshfield**

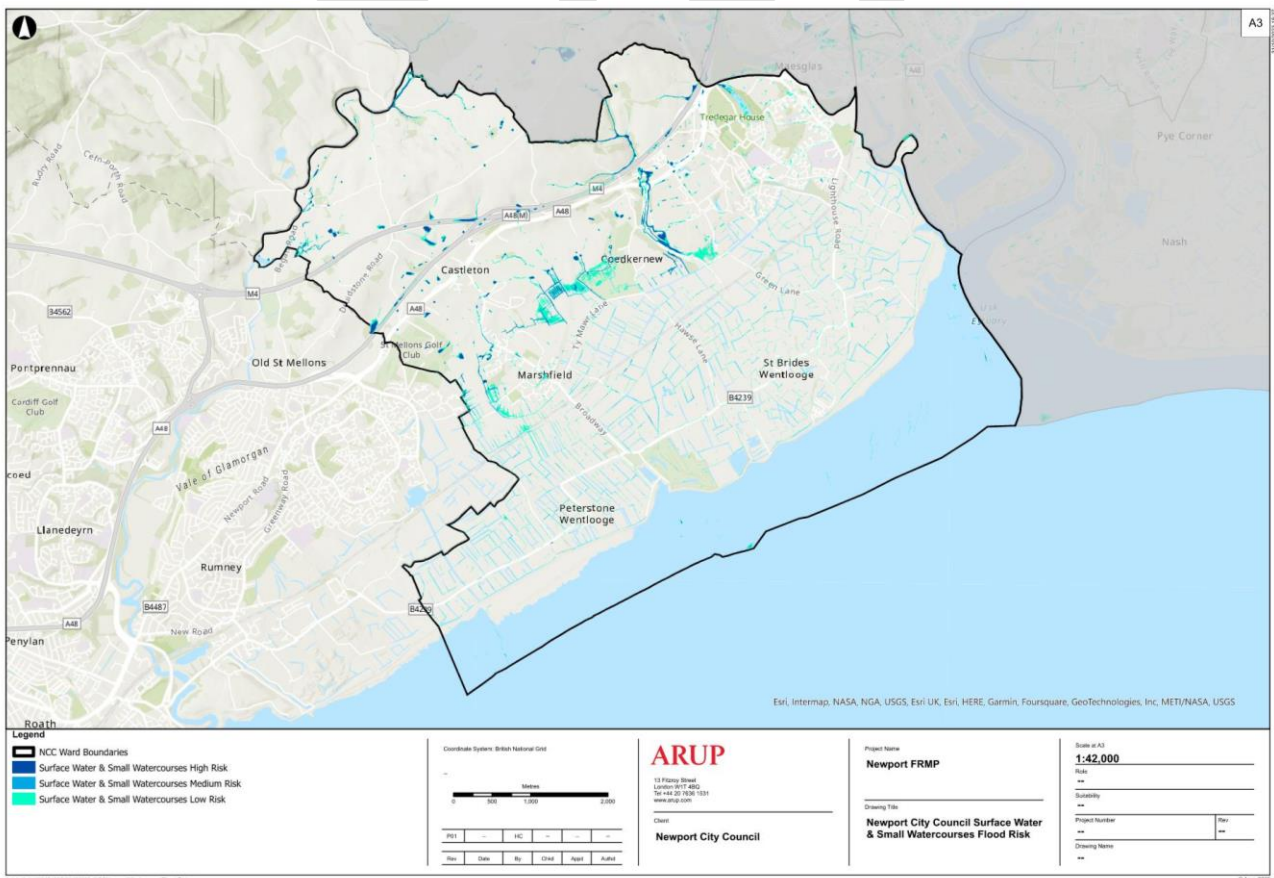


Figure 29 Tredegar Park and Marshfield surface water flood risk

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6.4.21 Victoria

Victoria Ward is situated in the central part of NCC, covering an area of Central Newport to the south-east. It has a population of 7,4473¹ and an area of 1.03km², which is approximately 0.5% of the total area of Newport. Victoria Ward is bordered by the River Usk to the west. The Ward is relatively flat and contains a mix of residential, commercial and industrial developments.

Areas of low to medium surface water flood risk are indicated by flood mapping, with isolated areas of high risk to the north of Chepstow Road. Reported flood risk incidents have been recorded on Chepstow Road and minor roads such as, Marlborough Road, Prince Street, Livingstone Place and Methuen Road. Due to the nature of these flood incidents, the measures engaged were to liaise with DCWW on opportunities throughout the ward and to replace damaged channels where necessary.

Continuation of maintenance on highway drainage ongoing in the wards.

For further, ward specific information refer to Storymap saved here: **Victoria**

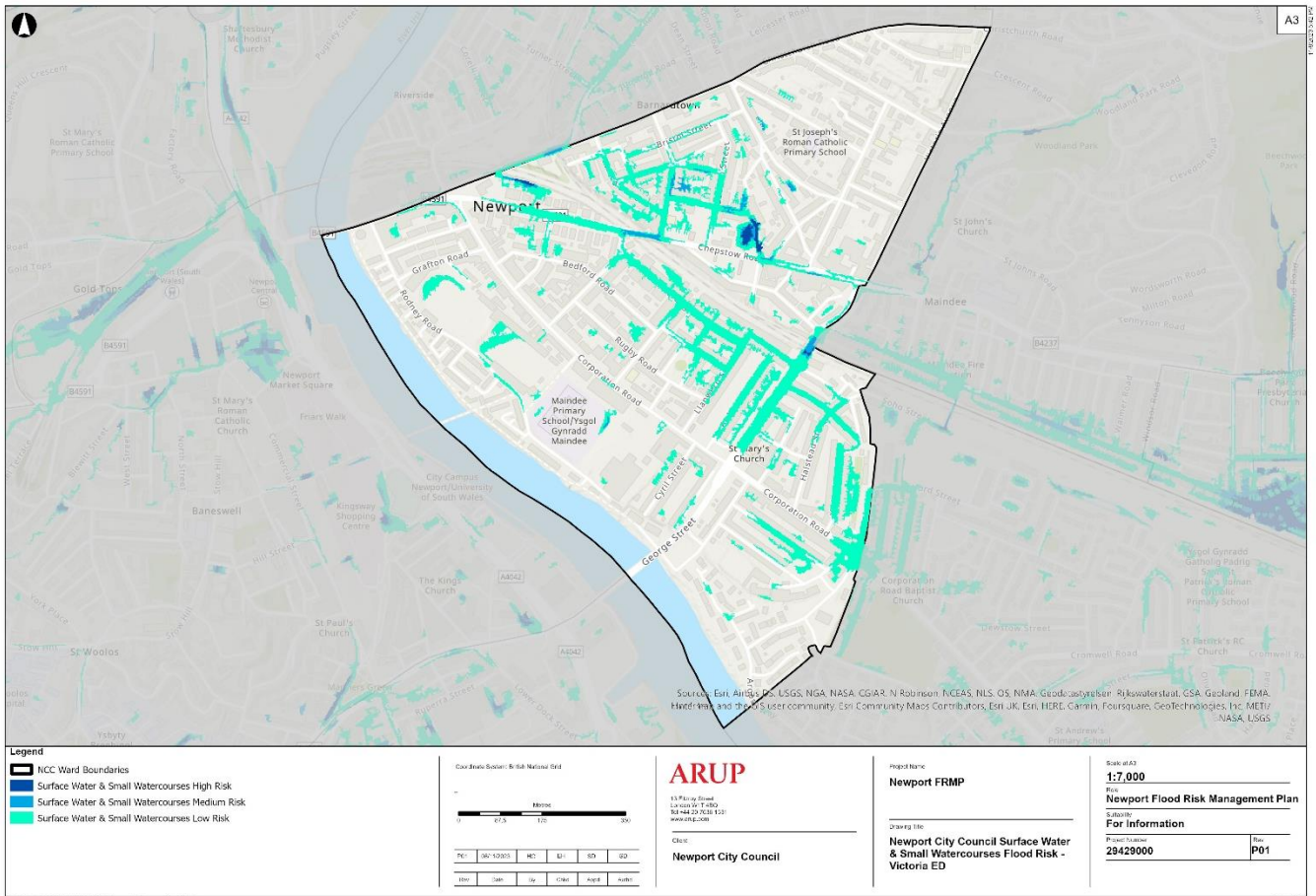


Figure 30 Victoria surface water flood risk

7. Funding and Prioritisation

7.1 Funding Options

Measures to manage local flood risk are funded from a range of sources, although funding is primarily provided by Welsh Government.

The Welsh Government provides revenue and capital grants in relation to Flood & Coastal Erosion Risk Management activities. FCERM capital schemes, are justified in accordance with the WG FCERM Business Case Guidance.

The Welsh Government prioritises FCERM schemes which primarily reduce risk to homes. Businesses and public buildings can also benefit from schemes, in particular those which reduce risk to a mix of development types such as homes and shops along a high street or local district centre. Schemes which only reduce risk to businesses remain eligible but should not be prioritised over schemes which reduce risk to homes. Funding is not available to enable new development. RMAs applying for funding are encouraged to identify wider benefits such as regeneration opportunities, improvements to habitats/biodiversity, mental health or recreational benefits. Early consideration of aligning multiple benefits to secure wider funding is encouraged. Where significant benefits are identified to third parties, it is expected RMAs will work both internally and externally (for example with infrastructure providers, utilities, industry and commerce) to identify and secure appropriate partnership funding contributions from those benefitting from a scheme.

Where overall capital scheme costs are anticipated to be less than £750k a Business justification Case (BJC) is required to be submitted prior to Detailed Design and a Full Business Case. For schemes >£750k an Outline Business case (OBC) is submitted prior to Detailed Design and a Full Business Case.

The FCERM Small Scale Works Grant allows Local Authorities to submit bids to undertake smaller flood alleviation schemes utilising Welsh Government funding.

Funding of up to £200k per scheme is available annually. The proposed works must reduce risk to people and properties or maintain their current levels of protection. The works should focus primarily on reducing risk to homes. FCERM small scale works should focus on addressing a flood or coastal risk problem where there is a strong case for the works proposed and there are no other feasible options.

The type of works eligible are:

- Minor works to existing flood and coastal risk management infrastructure e.g. improving trash screens/headwalls, relining culverts, restoring drainage systems, structural renovation works where properties are benefitting.
- Minor new drainage and defence infrastructure works where properties are benefitting.
- Property Level Protection – this should be installed on a community basis and must be supplied and fitted. A scheme solely for businesses would not be eligible Telemetry, etc.
- The WG Flood and Coastal Erosion Risk Management revenue grant allows Local authorities to bid for up to £225k annually to undertake eligible FCERM revenue based activities.
- Activities under appropriate flood, coastal or drainage legislation, including the Flood and Water Management Act (including Section 19 reports), Water Resources Act, Coast Protection Act or Land Drainage Act. The different activities to be undertaken should be listed separately within the application. · Activities or measures set out in the National Strategy for FCERM in Wales.

- Activities associated with the preparation or delivery of Local Flood Risk Management Strategies and/or Shoreline Management Plans – the different activities to be undertaken should be listed on the application.
- Identifying and promoting opportunities for natural flood management activities, especially where wider benefits such as biodiversity are provided.
- Flood outreach and awareness raising work including plans to communicate risk and building community resilience.
- Warning and informing communities of potential flood events.
- Minor works and/or small scale asset maintenance, inspection and recording. These may or may not be assets owned by the Local Authority.
- Mapping and asset database work. Any work undertaken collating data on assets must be done in a way so it can feed into your local register of assets under S.21 of the Flood and Water Management Act AND the National Asset Database held by Natural Resources Wales. This can include software and licences for storing data in a way which is compatible with the National Asset Database.
- Staff costs associated with flood and coastal risk management work.
- Training opportunities for staff related to the improved delivery of FCERM activities.

The Welsh Government encourages Natural Flood Management (NFM) interventions and to support this, the Flood and Coastal Erosion Risk Management (FCERM) Business Case Guidance mandates the consideration of NFM for all schemes. The aim is to deliver nature-based flood management in all major river catchments to expand wetland and woodland habitats. Applications up to a maximum value of £300,000 per scheme can be submitted and local authorities are able to submit multiple applications. Larger value schemes remain eligible but should first be discussed with the FCERM team. 100% grant funding is provided for the delivery of NFM schemes including appraisal, design, construction and monitoring equipment. The funding does not include for ongoing maintenance or monitoring costs.

WG encourages RMAs to work with any prospective partners and cross policy funding areas to access additional monies to support larger catchment approaches and benefits. This could also include Local Authorities funding third parties to CaRRy out work on their behalf with the RMA applying for and claiming grant funding from Welsh Government. In line with the WG funding policy set out in the National Strategy for Flood and Coastal Erosion Risk Management, all proposed NFM interventions must reduce risk to people and properties or maintain their current levels of protection. This aligns with the FCERM core grant. Works need to be economically worthwhile and satisfy all necessary statutory requirements.

7.2 Funding options for co-developed flood Measures & Actions

Partnership working and collaboration is an integral part of managing flood risk and is reflected in the duty to co-operate within the Flood and Water Management Act. Partnership contributions are wider than financial support. Consideration should also be given to contributions of time, expertise and land management agreements.

NCC will also continue to liaise with the NRW and DCWW to identify what, if any, flood risk management schemes they are implementing as RMAs and whether there is an opportunity to work jointly and share the costs associated with any of the proposed measures.

Where significant benefits are identified to third parties for a proposed flood risk management scheme, NCC will work to identify and secure appropriate partnership funding contributions from those third parties benefitting from such a scheme.

7.3 How we Prioritise Flood Measures and Actions

In order to determine which actions are prioritised, criteria are set, scored based on the magnitude of the benefit provided and then weighted in accordance with the importance of the criterion. The output of this process is a score applied to all of the flood actions proposed. The proposed criteria are based on the following:

- Number of properties with high or medium risk of hazardous flood waters (hazard rating >1.25)
- Number of properties at high or medium risk of inundation (>0.15m)
- Historic incident recorded
- Infrastructure at risk
- Opportunities to protect or enhance the natural or historic environment
- Opportunities to improve safety and the effectiveness of emergency responses
- Opportunities to work with other RMAs to develop an integrated FRM solution
- Whether solutions are deliverable with effective whole-life costs and additional available funding opportunities

Alongside the periodical review of the flood action plan, the prioritisation criteria will be reviewed annually to ensure that they still align with the wider flood objectives and nature of the risk impacting Newport.

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8. Flood Measures

8.1 Introduction to Flood Measures

The council has identified a series of measures that are appropriate for managing local flood risk in the context of Newport. A measure is defined as an activity, which will be undertaken to manage risk and achieve the agreed objectives. A wide range of measures have been considered and range from planning and administration to maintenance of assets and emergency response to flood and coastal erosion incidents. In addition, they have been considered for the short, medium and long terms. This will ensure that the strategy is forward thinking and not just reactive to incidents of extreme flooding and coastal erosion.

Through its legislative and guidance framework the Welsh Government has identified seven measures under the high-level themes (Prevention, Protection and Preparedness) for LLFAs to consider in preparing their strategies. These measures are:

1. Development planning and adaptation (encompassing both new and adaptations to existing developments/landscapes).
2. Flood forecasting, warning and response.
3. Land, cultural and environmental management.
4. Asset management and maintenance.
5. Studies assessments and plans.
6. High level awareness and engagement (to increase individual and community resilience).
7. Monitoring (of the local flood risk issues).

The measures developed as part of this strategy specifically are summarised in Figure 31 below, with further information available in Appendix A.

Measure no.	Proposed Measures	Timescale
1	In accordance with the requirements of the Flood and Water Management Act 2010, NCC in partnership with other Risk Management Authorities (RMAs) will lead the management of	Short term (0-20 years)

	flood risk arising from local sources (i.e. surface water, groundwater and ordinary watercourses), and coastal erosion risk within Newport.	
2	NCC will use the NRW Flood Risk Maps in addition to gathering local knowledge to identify areas of significant local flood risk. This will be supplemented with historical flood data held by NCC and also data provided by DCWW, NRW and the Fire and Rescue Service. The local Flood Risk Management Strategy will be prepared based on this information.	Short term (0-20 years)
3	In October 2020 WG published The National Strategy for Flood and Coastal Erosion Risk Management in Wales. The strategy sets out how WG intends to manage the risk from flooding and coastal erosion across Wales over the next 10 years. It sets out the policies and direction for all Welsh Flood Risk Management Authorities to follow. The 22 Welsh Local Authorities as Lead Local Flood Authorities (LLFA) are responsible for managing flood risk from surface water, groundwater and ordinary watercourses. LAs also manage drainage of local highways under Highways Act 1980. Their duties include preparing Local Flood Risk Management Strategies, investigating all significant flooding and maintaining asset registers on defences/ flood assets in their area.	Short term (0-20 years)
4	As part of the update of the current LDP proposed development sites which have been identified with flood risk will form part of a Strategic Flood Consequences Assessment to consider the effects of flooding elsewhere in the flood area. TAN 15 encourages Local Planning Authorities to prepare a SFCA as part of the LDP evidence base. The aim of the SFCA is to help the Council make informed decisions when considering future development within its area so that, wherever possible, new development will be directed away from areas at high risk of flooding. The SFCA helps determine appropriate development policies and land allocations that do not increase the risk of flooding within the development or the surrounding area, provides an opportunity to reduce the level of flood risk, and helps manage the consequences of flood risk.	Short term (0-20 years)
5	NCC will ensure that the Local Development Plan (LDP) adequately addresses flood and coastal erosion risks including climate change and its effects. This should be undertaken by directing developments away from areas at high risk of flooding or coastal erosion and where the consequences of flooding and/or coastal erosion are deemed unacceptable. The exception to this may be in situations where the information outlined in the Development Advice Maps / Flood Map for Planning is demonstrated to be incorrect and where feasible and acceptable mitigation measures can be incorporated. The LDP identifies the need to consider the impact of coastal erosion and the creation of habitat and environmental restoration.	Short term (0-20 years)

6	Where required and when funding becomes available, NCC will undertake catchment based studies with a view to identifying flood risk and design new mitigation measures.	Short, medium and long term (0-100 years)
7	Whenever possible, NCC in conjunction with the RMAs, will provide advice to supportive landowners on sustainable land use management aiming at improving the risk of flooding and encourage Natural Flood Management . Sustainable land management should consider aspects such as environmental enhancement, habitat restoration and habitat creation, all of which can play a role in alleviating flood risk.	Short, medium and long term (0-100 years)
8	NCC maintains and regularly updates a database of all flood risk assets that are likely to influence local flood risk and coastal erosion. This register contains details of the condition and ownership of these structures and features (including SuDS features).	Short, medium and long term (0-100 years)
9	<p>On the 7th January 2019, Welsh Government implemented schedule 3 of the Flood and Water Management Act 2010 for the use of SuDS in new developments. This act states:</p> <ul style="list-style-type: none"> • All new developments of more than 1 house, or where the construction area is 100m² or more will require sustainable drainage systems (SuDS) for managing surface water. • Drainage systems for all new developments must be designed and built in accordance with the Welsh Government Statutory Standards for SuDS. • Local authorities will become SuDS Approval Bodies (SABs). • SuDS schemes must be approved by the local authority acting in the SAB role before construction works can begin. The SAB can then adopt compliant SuDS features so long as they are built and function in accordance with the approved proposals, including any SAB conditions of approval. • The SAB is not required to adopt SuDS features where they serve a single property such as a house, warehouses or retail complexes. In this case maintenance will remain the responsibility of the owner. NCC is responsible as the highway authority for the maintenance of any SuDS in the adopted highway. <p>Schedule 3 of the Flood and Water Management Act 2010 places a mandatory requirement for the authority, acting in its capacity as the SAB, to adopt drainage systems that are constructed in accordance with Welsh Government Statutory Standards for Sustainable Drainage.</p> <p>What is the purpose of SuDS legislation? Surface water flooding is a serious problem identified as a major cause of flooding to homes. The impact on residents, communities and cost to the economy is significant. The risk of flooding is on the rise owing to climate change and urbanisation. In particular, local flooding, due to the overloading of volume</p>	Short, medium and long term (0-100 years)

constrained drainage system and sewers, is of increasing concern. Under the terms of the Flood and Water Management Act 2010 Lead Local Flood Authorities (LLFAs) are responsible for managing local flood risk which includes that from surface water.

Surface water runoff can be a source of diffuse pollution with the potential to pollute groundwater and rivers.

Schedule 3 to the 2010 Flood and Water Management Act requires surface water drainage systems on new developments to be designed to national standards and subsequently approved by the SAB before construction work with drainage implications can begin on most developments.

The responsibility for the SAB functions rests with NCC alongside it's duties as LLFA. The objective is to deliver effective, multi-purpose SuDS in new developments that will be maintained and remain effective for the lifetime of the developments they serve.

Under Schedule 3 to the Flood and Water Management Act 2010, subject to conditions the SAB must adopt SuDS that serve two or more properties. Where the SAB has a duty to adopt it is ultimately responsible for ensuring the adopted drainage system is maintained in accordance with statutory SuDS standards.

Securing a sustainable funding mechanism for the lifetime of the development is a key objective of the SAB. The SAB has a responsibility for the management and maintenance of SuDS assets.

The SAB is required to undertake the following functions;

- Provide pre application advice to developers to discuss SuDS proposals
- Administer, review and approve (or refuse) SuDS applications;
 - Consult with statutory consultees, such as ecology teams, Welsh Water, NRW, etc.
 - Manage the legal adoption process of SuDS and monitor the construction of SuDS;
 - Determine commuted sums for SuDs for future maintenance
- CaRRy out cyclic monitoring and enforcement for failure to maintain features adequately
- Ensure that SuDS infrastructure is properly maintained and functions effectively for it's design life of a minimum of 60 years.

Where development is occurring there is a requirement to ensure Sustainable Drainage Systems (SuDS) are used. This not only helps reduce run-off and flood risk, but can also relieve pressure on drainage systems and improve water quality.

10	NCC will monitor the strategy measures annually and will review the strategy every 6 years.	Short, medium and long
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		term (0-100 years)
11	NCC, in conjunction with the RMAs, will endeavour to liaise with local communities and businesses to raise awareness on flood and coastal erosion risks.	Short term (0-20 years)
12	NCC, in conjunction with the RMAs, will endeavour to raise awareness on the implementation of property level flood resilience measures in areas at risk of flooding.	Short term (0-20 years)
13	NCC, in conjunction with the RMAs, will encourage participation from willing local communities and businesses in managing local flood risk.	Short term (0-20 years)
14	NCC, in conjunction with the RMAs, will make appropriate provisions to enable local communities and businesses to find information associated with flood and coastal erosion risks. This will include guidance on NCC's website on how to report a flood incident, important contact details.	Short term (0-20 years)
15	NCC will continue to work in partnership with the Risk Management Authorities (RMAs) and other relevant stakeholders, such as adjacent local authorities and the South East Wales Flood Risk Management Group to manage local flood risk.	Short, medium and long term (0-100 years)
16	As a Category One responder as defined by the Civil Contingencies Act 2004, through the Gwent Local Resilience Forum (GLRF), NCC works closely with its multi-agency partners to establish and maintain effective multi-agency plans and arrangements to respond to major emergencies. These include arrangements that provides information on local flood hazards and risks and multi-agency response to flood incidents so to minimise the impact on the public, property, and environment of the Gwent Police area. In addition, the GLRF has in place arrangements to consider the consequences of incidents such as flooding, including shelter and evacuation, recovery and warning and informing	Short term (0-20 years)
17	Where local flood risk has been identified, NCC will work with multi agency partners to warn and inform local communities, businesses, and individuals of the risks of flooding occurring and actions to be taken before, during and after flooding emergencies. In addition, NCC and its partners will provide information and where possible assist in the development of Community Resilience Plans.	Short term (0-20 years)
18	As required by the statutory duties provided by the Civil Contingencies Act 2004, NCC with its multi-agency partners through the Gwent LRF and across Wales, has a joint responsibility to ensure that all elements of emergency plans and arrangements, including activation, implementation, response, and recovery, are continually tested and exercised. This includes plans and arrangements in relation to flooding and flooding emergencies.	Short term (0-20 years)
19	Where necessary, NCC will endeavour to undertake investigations into flood incidents within four weeks.	Short, medium and long term (0-100 years)

20	NCC will identify communities that are at most risk of flooding from local sources or from coastal erosion, consider the cost and benefits of identified schemes that manage or reduce the risk of flooding from these sources, and prepare and implement a prioritisation system for specific projects. Where funding is available, NCC will prepare a business case for securing funding for projects identified as high priority.	Short term (0-20 years)
21 22	<p>NCC will annually review their current maintenance regime and consider targeted maintenance changes to manage or reduce local flood and coastal erosion risk.</p> <p>Under Section 19 of the Flood and Water Management Act 2010 on becoming aware of a flood in it's area, a Lead Local Flood Authority (LLFA) must, to the extent that it considers it necessary or appropriate, investigate:</p> <ul style="list-style-type: none"> a) which risk management authorities have relevant flood risk management functions and b) whether each of those risk management authorities has exercised or is proposing to exercise those functions in response to the flood”. <p>A S19 report will be undertaken where 20 or more homes in one area experience internal flooding. This is in line with the recommendations in the WG National Strategy for Flood and Coastal Erosion Risk Management in Wales.</p> <p>‘Whilst no threshold is set in statute, the Welsh Government expects Section 19 reports to be undertaken where 20 or more homes in one area experience internal flooding. Local Authorities can choose a lower threshold and assess this in relation to each event, noting that floods affecting fewer homes can still cause considerable damage and/or loss of life’.</p>	Short, medium and long term (0-100 years)

9. Flood Actions

Flood actions are specific tasks, activities or initiatives, planned and tracked, to meet the Measures. They depend on the presence and effectiveness of flood measures, as they rely on the infrastructure, policies and information provided by these measures. Flood actions can highlight the necessity for adjustments or improvements in flood measures based on practical experience.

The proposed actions are location specific and have a set timeline where that be short, medium and long term with clearly defined and measurable outcomes. They are to be reviewed and updated on a regular basis, with interim reporting on their progress in between the updating of the Local Flood Risk Management Strategy.

The flood action plan for Newport has been developed in consultation with relevant RMAs and the operational staff, taking into account the assessment of the flood risk as contained in Section 6. This ensures that the flood actions are responding directly to the flood risk experienced within Newport.

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Action	Benefits	Indicative Timescales	Indicative Cost	Funding Options	Type(s) of Flood Management
Planned CCTV survey/investigations, minor works (including desilting, relining & root clearance works) and/or small-scale asset maintenance, inspection & recording	Undertaking the investigation of flooding and the inspection and upgrading of flood risk assets is essential in ensuring that the risk of flooding is reduced for residents, communities and the environment.	2024/25	£170k	WG Flood Revenue Grant	Prevention, Preparedness & Protection, Review
Annual maintenance of flood asset database & associated software costs	To enable ongoing maintenance of NCC's flood asset register	2024/25	£5k	WG Flood Revenue Grant	Prevention, Preparedness & Protection, Review
Staff training	To increase staff awareness and knowledge of flood risk management.	2024/25	£2k	WG Flood Revenue Grant	Prevention, Preparedness & Protection, Review
Planned programme for clearance of flood assets & watercourses	Undertaking the inspection & clearance of flood risk assets is essential in ensuring that the risk of flooding is reduced, and resilience is increased for residents, communities and the environment.	2024/25	£48k	WG Flood Revenue Grant	Prevention, Preparedness & Protection,
Cyclic gully cleansing schedule	Principal, Classified and City Centre routes – are cleansed twice a year. Alway, Victoria, Allt-Yr-Yn, Bettws, Pillgwenlly, Stow Hill – are cleansed once a year.	2024/25	£278k	Highways & Drainage annual revenue budget	Prevention, Preparedness & Protection,

	<p>The remaining wards are cleansed every two years: -</p> <ul style="list-style-type: none"> • Year 1 – Beechwood, Bishton & Langstone, Llanwern, St Julians, Gaer, Tredegar Park & Marshfield, Rogerstone • Year 2 – Caerleon, Liswerry, Ringland, Graig, Malpas, Shaftesbury, 				
Reen maintenance schedule	Undertaking the inspection & clearance of flood risk assets is essential in ensuring that the risk of flooding is reduced, and resilience is increased for residents, communities and the environment.	2024/25	£139k	Highways & Drainage annual revenue budget	Prevention, Preparedness & Protection,
Minor ad hoc reactive drainage works	Undertaking reactive works to flood risk assets is essential in ensuring that the risk of flooding is reduced, and resilience is increased for residents, communities and the environment.	2024/25	£139k	Highways & Drainage annual revenue budget	Prevention, Preparedness & Protection,
Small Scale Capital Schemes (Grant application pending review by WG)	Undertaking flood asset improvement schemes/new schemes in flood risk areas is essential to help reduce flood risk and improve flood resilience for	2024/25	£200k	WG Small Scale Works Grant	Prevention, Preparedness & Protection, Review

	residents, communities, and the environment.				
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Figure 31 Flood Measures

10. Environmental Assessments

Assessments have been undertaken alongside the development of this Local Strategy to ensure the Objectives, Measures and Actions presented take into account the environment within the local authority area, including important designations.

10.1 Strategic Environmental Assessment (SEA)

A Strategic Environmental Assessment (SEA) is a way of assessing and monitoring the likely effects (positive and negative) of plans, programmes and strategies on the environment. It applies at the level of the plan or strategy (i.e. Local Strategy) which sets the direction for future development projects.

An SEA is a legal requirement to accompany a Local Strategy. Such assessments help to enable informed and transparent decision-making for the benefit of plan makers and the wider community in Wales.

The SEA was developed alongside this Local Strategy and is contained within a separate report.

The Strategic Environmental Assessment of the Replacement Local Development Plan Preferred Strategy has been undertaken alongside a number of legally required assessments and forms part of the Integrated Sustainability Appraisal (ISA). An Initial ISA Report has been produced to support the Preferred Strategy and forms an appraisal of alternatives in accordance with the Strategic Environmental Assessment Directive. The Initial ISA Report fully appraises growth and spatial options, including the sites proposed to the Council for development. Chapter 6 of the Report outlines the Preferred Strategy and reasoning for taking this forward, referring back to the findings of the appraisal of options.

10.2 Habitats Regulation Assessment (HRA)

A Habitats Regulations Assessment (HRA) considers the possible harm a project or plan could cause to certain specially protected sites, with the aim of ensuring damage to these sites is avoided.

Due to the potential of this Local Strategy to impact the Natura 2000 network of protected sites, namely Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites, a HRA needs to be undertaken in parallel with the SEA as soon as possible in the process.

A Habitats Regulations Assessment screening has been undertaken of the Replacement Local Development Plan Preferred Strategy. The Screening comprises an assessment of likely significant effects arising from the Replacement Local Development Plan on the integrity of Habitats Sites and confirms that an Appropriate Assessment is required. This Appropriate Assessment is required to consider effects arising from the Plan in terms:

- Recreation pressure in Severn Estuary SPA / Ramsar, River Usk SAC and River Wye SAC.
- Water quality in Severn Estuary SPA / Ramsar and River Usk SAC.
- Water quantity level and flow Severn Estuary SPA / Ramsar, River Usk SAC and River Wye SAC.
- Loss of functionally linked habitat in Severn Estuary SPA / Ramsar.
- Noise and visual disturbance (during construction) in Severn Estuary SPA / Ramsar and River Usk SAC.
- Coastal squeeze Severn Estuary SPA / Ramsar and River Usk SAC.

The full HRA is contained within a separate report.

10.3 Water Framework Assessment Directive (WFD) Assessment

The Water Framework Directive (WFD) imposes legal requirements to protect and improve the water environment.

According to the WLGA, flood risk management activities have a significant role in meeting the requirements of the Water Framework Directive (WFD) through the development of strategies and plans, schemes constructed, maintenance works undertaken, and permits issued. The WFD is a European directive that aims to protect and improve the water environment. It divides the water environment into water bodies, which can include lakes, reservoirs, streams, rivers, canals, groundwater, transitional waters (estuaries), and coastal waters.

River basin management plans (RBMPs) describe how the WFD will be achieved in each region, for Newport this the Severn Basin Management Plan. The Severn River Basin Management Plan outlines the current state of the Severn River Basin and provides a plan for its management in the future. The plan discusses the various challenges the basin faces, including flood risk management, water quality, and biodiversity. It identifies key stakeholders and provides an overview of the engagement process used to gather information and feedback from them.

Regarding flood risk management, the plan highlights the importance of working with partners to improve communication and coordination, promote sustainable drainage systems, and develop flood risk management plans. It also sets out a range of actions to improve flood resilience and response, including better data and monitoring, improved flood warnings, and community engagement.

In addition to the above, NRW in collaboration with WLGA have produced a guidance note on how Local Authorities can meet the requirements of the Local Framework Directive. This includes guidance on the management of Local Flood Risk.

The actions within the Severn Basin Management Plan and NRW/WLGA guidance have been taken into account in the development of the objectives, measures and actions contained within this Local Strategy. The following objectives respond directly to the requirements of the plan:

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11. Monitoring Progress

The National Strategy will be formally reviewed on a six-yearly cycle, mirroring the requirements of the Flood Risk Regulations 2009. This will enable the Welsh Government to consider the information being produced from the mapping and planning exercises that the NRW and LLFA complete. This information will also inform Local Strategies, therefore the cycle of review for the Local Strategies will be every 6 years.

The proposed flood action and delivery programme will be reviewed annually. Additional actions may be identified in the interim if new sources of flooding are identified which require addressing.

Annual updates to the action plan will be circulated internally to all relevant parties i.e. senior management, Highways Drainage, SAB, etc.

The action plan will be updated annually to include details of schemes/works that have been completed within the financial year and to provide details of schemes where funding is anticipated/has been approved for the following financial year.

This will be communicated to the public through the publication of a revised flood action plan as shown in Appendix B.

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Appendix A

Schedule of Flood Measures

Measure no.	Proposed Measures	Timescale
1	In accordance with the requirements of the Flood and Water Management Act 2010, NCC in partnership with other Risk Management Authorities (RMAs) will lead the management of flood risk arising from local sources (i.e. surface water, groundwater and ordinary watercourses), and coastal erosion risk within Newport.	Short term (0-20 years)
2	NCC will use the NRW Flood Risk Maps in addition to gathering local knowledge to identify areas of significant local flood risk. This will be supplemented with historical flood data held by NCC and also data provided by DCWW, NRW and the Fire and Rescue Service. The local Flood Risk Management Strategy will be prepared based on this information.	Short term (0-20 years)
3	In October 2020 WG published The National Strategy for Flood and Coastal Erosion Risk Management in Wales. The strategy sets out how WG intends to manage the risk from flooding and coastal erosion across Wales over the next 10 years. It sets out the policies and direction for all Welsh Flood Risk Management Authorities to follow. The 22 Welsh Local Authorities as Lead Local Flood Authorities (LLFA) are responsible for managing flood risk from surface water, groundwater and ordinary watercourses. LAs also manage drainage of local highways under Highways Act 1980. Their duties include preparing Local Flood Risk Management Strategies, investigating all significant flooding and maintaining asset registers on defences/ flood assets in their area.	Short term (0-20 years)
4	As part of the update of the current LDP proposed development sites which have been identified with flood risk will form part of a Strategic Flood Consequences Assessment to consider the effects of flooding elsewhere in the flood area. TAN 15 encourages Local Planning Authorities to prepare a SFCA as part of the LDP evidence base. The aim of the SFCA is to help the Council make informed decisions when considering future development within its area so that, wherever possible, new development will be directed away from areas at high risk of flooding. The SFCA helps determine appropriate development policies and land allocations that do not increase the risk of flooding within the development or the surrounding area, provides an opportunity to reduce the level of flood risk, and helps manage the consequences of flood risk.	Short term (0-20 years)
5	NCC will ensure that the Local Development Plan (LDP) adequately addresses flood and coastal erosion risks including	Short term (0-20 years)

	<p>climate change and its effects. This should be undertaken by directing developments away from areas at high risk of flooding or coastal erosion and where the consequences of flooding and/or coastal erosion are deemed unacceptable. The exception to this may be in situations where the information outlined in the Development Advice Maps / Flood Map for Planning is demonstrated to be incorrect and where feasible and acceptable mitigation measures can be incorporated. The LDP identifies the need to consider the impact of coastal erosion and the creation of habitat and environmental restoration.</p>	
6	<p>Where required and when funding becomes available, NCC will undertake catchment based studies with a view to identifying flood risk and design new mitigation measures.</p>	<p>Short, medium and long term (0-100 years)</p>
7	<p>Whenever possible, NCC in conjunction with the RMAs, will provide advice to supportive landowners on sustainable land use management aiming at improving the risk of flooding and encourage Natural Flood Management . Sustainable land management should consider aspects such as environmental enhancement, habitat restoration and habitat creation, all of which can play a role in alleviating flood risk.</p>	<p>Short, medium and long term (0-100 years)</p>
8	<p>NCC maintains and regularly updates a database of all flood risk assets that are likely to influence local flood risk and coastal erosion. This register contains details of the condition and ownership of these structures and features (including SuDS features).</p>	<p>Short, medium and long term (0-100 years)</p>
9	<p>On the 7th January 2019, Welsh Government implemented schedule 3 of the Flood and Water Management Act 2010 for the use of SuDS in new developments. This act states:</p> <ul style="list-style-type: none"> • All new developments of more than 1 house, or where the construction area is 100m² or more will require sustainable drainage systems (SuDS) for managing surface water. • Drainage systems for all new developments must be designed and built in accordance with the Welsh Government Statutory Standards for SuDS. • Local authorities will become SuDS Approval Bodies (SABs). • SuDS schemes must be approved by the local authority acting in the SAB role before construction works can begin. The SAB can then adopt compliant SuDS features so long as they are built and function in accordance with the approved proposals, including any SAB conditions of approval. • The SAB is not required to adopt SuDS features where they serve a single property such as a house, warehouses or retail complexes. In this case maintenance will remain the responsibility of the owner. NCC is responsible as the highway authority for the maintenance of any SuDS in the adopted highway. • 	<p>Short, medium and long term (0-100 years)</p>

Schedule 3 of the Flood and Water Management Act 2010 places a mandatory requirement for the authority, acting in its capacity as the SAB, to adopt drainage systems that are constructed in accordance with Welsh Government Statutory Standards for Sustainable Drainage.

What is the purpose of SuDS legislation?

Surface water flooding is a serious problem identified as a major cause of flooding to homes. The impact on residents, communities and cost to the economy is significant. The risk of flooding is on the rise owing to climate change and urbanisation. In particular, local flooding, due to the overloading of volume constrained drainage system and sewers, is of increasing concern. Under the terms of the Flood and Water Management Act 2010 Lead Local Flood Authorities (LLFAs) are responsible for managing local flood risk which includes that from surface water.

Surface water runoff can be a source of diffuse pollution with the potential to pollute groundwater and rivers.

Schedule 3 to the 2010 Flood and Water Management Act requires surface water drainage systems on new developments to be designed to national standards and subsequently approved by the SAB before construction work with drainage implications can begin on most developments.

The responsibility for the SAB functions rests with NCC alongside it's duties as LLFA. The objective is to deliver effective, multi-purpose SuDS in new developments that will be maintained and remain effective for the lifetime of the developments they serve.

Under Schedule 3 to the Flood and Water Management Act 2010, subject to conditions the SAB must adopt SuDS that serve two or more properties. Where the SAB has a duty to adopt it is ultimately responsible for ensuring the adopted drainage system is maintained in accordance with statutory SuDS standards. Securing a sustainable funding mechanism for the lifetime of the development is a key objective of the SAB. The SAB has a responsibility for the management and maintenance of SuDS assets.

The SAB is required to undertake the following functions;

- Provide pre application advice to developers to discuss SuDS proposals
- Administer, review and approve (or refuse) SuDS applications;
- Consult with statutory consultees, such as ecology teams, Welsh Water, NRW, etc.
- Manage the legal adoption process of SuDS and monitor the construction of SuDS;
- Determine commuted sums for SuDs for future maintenance

	<ul style="list-style-type: none"> - CaRRy out cyclic monitoring and enforcement for failure to maintain features adequately - Ensure that SuDS infrastructure is properly maintained and functions effectively for it's design life of a minimum of 60 years. <p>Where development is occurring there is a requirement to ensure Sustainable Drainage Systems (SuDS) are used. This not only helps reduce run-off and flood risk, but can also relieve pressure on drainage systems and improve water quality.</p>	
10	NCC will monitor the strategy measures annually and will review the strategy every 6 years.	Short, medium and long term (0-100 years)
11	NCC, in conjunction with the RMAs, will endeavour to liaise with local communities and businesses to raise awareness on flood and coastal erosion risks.	Short term (0-20 years)
12	NCC, in conjunction with the RMAs, will endeavour to raise awareness on the implementation of property level flood resilience measures in areas at risk of flooding.	Short term (0-20 years)
13	NCC, in conjunction with the RMAs, will encourage participation from willing local communities and businesses in managing local flood risk.	Short term (0-20 years)
14	NCC, in conjunction with the RMAs, will make appropriate provisions to enable local communities and businesses to find information associated with flood and coastal erosion risks. This will include guidance on NCC's website on how to report a flood incident, important contact details.	Short term (0-20 years)
15	NCC will continue to work in partnership with the Risk Management Authorities (RMAs) and other relevant stakeholders, such as adjacent local authorities and the South East Wales Flood Risk Management Group to manage local flood risk.	Short, medium and long term (0-100 years)
16	As a Category One responder as defined by the Civil Contingencies Act 2004, through the Gwent Local Resilience Forum (GLRF), NCC works closely with its multi-agency partners to establish and maintain effective multi-agency plans and arrangements to respond to major emergencies. These include arrangements that provides information on local flood hazards and risks and multi-agency response to flood incidents so to minimise the impact on the public, property, and environment of the Gwent Police area. In addition, the GLRF has in place arrangements to consider the consequences of incidents such as flooding, including shelter and evacuation, recovery and warning and informing	Short term (0-20 years)
17	Where local flood risk has been identified, NCC will work with multi agency partners to warn and inform local communities, businesses, and individuals of the risks of flooding occurring and actions to be taken before, during and after flooding emergencies. In addition, NCC and its partners will provide information and where possible assist in the development of Community Resilience Plans.	Short term (0-20 years)

18	As required by the statutory duties provided by the Civil Contingencies Act 2004, NCC with its multi-agency partners through the Gwent LRF and across Wales, has a joint responsibility to ensure that all elements of emergency plans and arrangements, including activation, implementation, response, and recovery, are continually tested and exercised. This includes plans and arrangements in relation to flooding and flooding emergencies.	Short term (0-20 years)
19	Where necessary, NCC will endeavour to undertake investigations into flood incidents within four weeks.	Short, medium and long term (0-100 years)
20	NCC will identify communities that are at most risk of flooding from local sources or from coastal erosion, consider the cost and benefits of identified schemes that manage or reduce the risk of flooding from these sources, and prepare and implement a prioritisation system for specific projects. Where funding is available, NCC will prepare a business case for securing funding for projects identified as high priority.	Short term (0-20 years)
21	NCC will annually review their current maintenance regime and consider targeted maintenance changes to manage or reduce local flood and coastal erosion risk.	Short, medium and long term (0-100 years)
22	<p>Under Section 19 of the Flood and Water Management Act 2010 on becoming aware of a flood in it's area, a Lead Local Flood Authority (LLFA) must, to the extent that it considers it necessary or appropriate, investigate:</p> <ul style="list-style-type: none"> c) which risk management authorities have relevant flood risk management functions and d) whether each of those risk management authorities has exercised or is proposing to exercise those functions in response to the flood”. <p>A S19 report will be undertaken where 20 or more homes in one area experience internal flooding. This is in line with the recommendations in the WG National Strategy for Flood and Coastal Erosion Risk Management in Wales.</p> <p>‘Whilst no threshold is set in statute, the Welsh Government expects Section 19 reports to be undertaken where 20 or more homes in one area experience internal flooding. Local Authorities can choose a lower threshold and assess this in relation to each event, noting that floods affecting fewer homes can still cause considerable damage and/or loss of life’.</p>	

Appendix B

Our Flood Action Plan

Action	Benefits	Indicative Timescales	Indicative Cost	Funding Options	Type(s) of Flood Management
Planned CCTV survey/investigations, minor works (including desilting, relining & root clearance works) and/or small-scale asset maintenance, inspection & recording	Undertaking the investigation of flooding and the inspection and upgrading of flood risk assets is essential in ensuring that the risk of flooding is reduced for residents, communities and the environment.	2024/25	£170k	WG Flood Revenue Grant	Prevention, Preparedness & Protection, Review
Annual maintenance of flood asset database & associated software costs	To enable ongoing maintenance of NCC's flood asset register	2024/25	£5k	WG Flood Revenue Grant	Prevention, Preparedness & Protection, Review
Staff training	To increase staff awareness and knowledge of flood risk management.	2024/25	£2k	WG Flood Revenue Grant	Prevention, Preparedness & Protection, Review
Planned programme for clearance of flood assets & watercourses	Undertaking the inspection & clearance of flood risk assets is essential in ensuring that the risk of flooding is reduced, and resilience is increased for residents, communities and the environment.	2024/25	£48k	WG Flood Revenue Grant	Prevention, Preparedness & Protection,

Cyclic gully cleansing schedule	Principal, Classified and City Centre routes – are cleansed twice a year. Alway, Victoria, Allt-Yr-Yn, Bettws, Pillgwenlly, Stow Hill – are cleansed once a year. The remaining wards are cleansed every two years: - <ul style="list-style-type: none"> • Year 1 – Beechwood, Bishton & Langstone, Llanwern, St Julians, Gaer, Tredegar Park & Marshfield, Rogerstone • Year 2 – Caerleon, Liswerry, Ringland, Graig, Malpas, Shaftesbury, 	2024/25	£278k	Highways & Drainage annual revenue budget	Prevention, Preparedness & Protection,
Reen maintenance schedule	Undertaking the inspection & clearance of flood risk assets is essential in ensuring that the risk of flooding is reduced, and resilience is increased for residents, communities and the environment.	2024/25	£139k	Highways & Drainage annual revenue budget	Prevention, Preparedness & Protection,
Minor ad hoc reactive drainage works	Undertaking reactive works to flood risk assets is essential in ensuring that the risk of flooding is reduced, and resilience is increased for residents, communities and the environment.	2024/25	£139k	Highways & Drainage annual revenue budget	Prevention, Preparedness & Protection,

<p>Small Scale Capital Schemes (Grant application pending review by WG)</p>	<p>Undertaking flood asset improvement schemes/new schemes in flood risk areas is essential to help reduce flood risk and improve flood resilience for residents, communities, and the environment.</p>	<p>2024/25</p>	<p>£200k</p>	<p>WG Small Scale Works Grant</p>	<p>Prevention, Preparedness & Protection, Review</p>
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Appendix C

C.1 National

C.1.1 Flood Risk Regulations, 2009

Legislative Context

The purpose of the Flood Risk Regulations is to transpose the European Commission (EC) Floods Directive (2007/60/EC), on the assessment and management of local flood risk, into domestic law in England and Wales and to implement its provisions. The Regulations require the Environment Agency to prepare Directive deliverables associated with flood risk arising from Main Rivers, sea and reservoirs, and the LLFAs to do the same for flood risk associated with local sources such as surface water, groundwater and Ordinary Watercourses. In particular it places duties on the Environment Agency and the LLFAs to prepare a number of documents including:

9. Preliminary Flood Risk Assessment (PFRA) report – submitted to the Environment Agency in April 2011.
10. Flood risk and flood hazard maps – contained within the FRMP completed December 2015. To be superseded by the Local Strategy, due for completion April 2024.
11. Flood risk management plan (FRMP) – completed December 2015. To be superseded by the Local Strategy, due for completion April 2024.

C.1.2 Flood and Water Management Act 2010

The Flood and Water Management Act 2010 requires flood and coastal erosion risk management authorities (that did not previously have such a duty) to aim to contribute towards the achievement of sustainable development when exercising their flood and coastal erosion risk management functions. Local flood risk is defined within the Act as being a flood risk from:

1. Ordinary Watercourses (a watercourse that does not form part of Main River, includes a lake, pond or other area of water, which flows into an ordinary watercourse)
2. Surface runoff (rainfall or other precipitation which is on the surface or ground and has not entered a watercourse drainage system or public sewer)
3. Groundwater (water that has percolated into the ground and may form underground ponds or streams, which may discharge above ground but lower down the catchment).

Whilst the national leadership role associated with flood risk management continues to rest with the Environment Agency, the County Councils and Unitary Authorities assume the role of leading local flood risk management under the Act and shall lead the coordination of relevant agencies during a flood event.

Under the Flood and Water Management Act 2010, NCC must develop, maintain, apply and monitor a strategy for local flood risk management. Additionally, NCC must assume the role of leading local flood risk management under the Act and shall lead the coordination of relevant agencies during a flood event.

C.1.3 Well-Being of Future Generations Act (Wales), 2015

The Well-Being of Future Generations Act (WBFGA) is a pioneering piece of legislation enacted in Wales in 2015 that aims to enhance the well-being of current and future generations of Welsh citizens. One of the key principles of the WBFGA is the integration of sustainability and long-term thinking into all decision-making processes, including those related to natural resource management. Natural Resources Wales (NRW) is a key public body responsible for implementing

the WBFGA, and is tasked with ensuring that the country's natural resources are used in a sustainable and responsible manner.

Under the WBFGA, NRW is required to produce a Natural Resource Management Plan (NRMP) that sets out how natural resources will be managed to support the well-being goals of the legislation. The NRMP includes policies and strategies related to flood and coastal erosion risk management, biodiversity conservation, and sustainable land use. Through the NRMP, NRW aims to promote sustainable development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. The WBFGA and the NRMP have significant implications for the management of flood and coastal erosion risks in Wales, as they promote an integrated, long-term, and sustainable approach to managing the country's natural resources.

This Act places a duty on public bodies to CaRRy out sustainable development and to maximise their contribution to the achievement of the well-being goals. Public bodies are required to think about the long-term impact of their decisions, to work better with people, communities, and each other and to take action to prevent and mitigate persistent problems such as the impacts of climate change. The Local Strategy should be aligned with these goals and ensure it is responding directly to the Well Being Act.

C.1.4 Planning Policy Wales, 2021

The land use planning policies of the Welsh Government are set out in the Planning Policy Wales (PPW) which is supplemented by a series of Technical Advice Notes (TANs). These national planning policy documents provide a framework for the preparation of the Local Development Plans.

The policy highlights the importance of flood risk as a material consideration when planning land use. The Welsh Government's objectives for sustainable development encourage a move away from flood defence and mitigation of the consequences of flooding for a new development, towards avoiding developing in areas of extreme floodplain. Planning authorities are encouraged to take a precautionary approach when considering new development in an area of extreme floodplain.

In addition to this, the local planning authorities are also encouraged to work closely with the developer, NRW and drainage bodies to minimise the risk of surface water flooding and implement sustainable urban drainage systems, where deemed appropriate, to help control surface water run-off as close to the source as possible.

Towards the end of last year there has been an update to Chapter 6 of Planning Policy Wales. A new version of PPW is yet to be published, but in accordance with the letter found here <https://www.gov.wales/addressing-nature-emergency-through-planning-system-update-chapter-6-planning-policy-wales>, PPW should now be read as including the text in the Annex also found using the link.

The ‘Distinctive & Natural Places’ Chapter of the policy document sets out the Flooding and Surface Water Management Strategy. The items with the most relevance to Local authorities and to be considered in the production of the Local Plan are extracted below:

- **Integration between different authorities is encouraged, especially effective collaboration between drainage, highway and planning authorities.**
- **Planning authorities should be aware of the risk of surface water flooding, usually caused by heavy rainfall, and ensure developments are designed and planned to minimise potential impacts.**
- **Surface water flooding will affect choice of location and the layout and design of schemes and these factors should be considered at an early stage in formulating development proposals.**
- **Development Advice Maps enable planning authorities to take a strategic approach to flood risk and consider the catchment as a whole by providing a preliminary representation of flood risks, which inform decisions on the location of new development and the requirements necessary to support any applications which may be proposed. Together with flood consequences assessments they should assist understanding of how natural and man-made defences work as integral components of places and provide a means by which the cumulative effects of development can begin to be understood. The Development Advice Map will be replaced by the Flood Map for Planning when the new TAN15 is fully implemented. The Flood Map for Planning is updated every six months in November and June.**
- **Ensure sustainable drainage systems are an integral part of design approaches for new development; and ensure the protection of the quantity and quality of surface and ground water supplies taken into account as part of development proposals.**

C.1.5 Technical Advice Note 15, 2023

This 2023 document replaces Technical Advice Note 14, published in 1998 and Technical Advice Note 15, published in 2004. Development Plans and planning decisions should no longer refer to those documents.

TAN15 Development, Flooding and Coastal Erosion. 2023 provides guidance on assessing flood risk. It supplements the guidance provided in PPW and provides a framework for assessing fluvial, coastal, surface water and groundwater flooding, and associated risks for any development. The framework is based on precautionary principles which give due consideration to flood risk whilst recognising the need for development. This document also requires that due consideration is given to a surface water run-off strategy for any new development. It encourages the implementation of sustainable drainage systems to minimise surface water run-off and hence minimise the risk of surface water flooding.

TAN15 sets out a summary of national policy requirements for new developments for each of the development types and flood zones and provides guidance to developers undertaking Detailed Flood Consequences Assessments (DFCA). The update to TAN15 was due to be implemented in 2021 following publication. However, shortly before it was due to come into force, Welsh Government announced an 18-month suspension of the policy

to allow local planning authorities time to fully consider the impact of climate change projections.

Some of the key changes in the updated TAN15 include a new section on climate change and flood risk, updated guidance on flood risk assessments, and a new policy on the sequential test for development in areas at risk of flooding.

The guidance also emphasizes the importance of sustainable drainage systems (SuDS) as a means of reducing surface water runoff and managing flood risk. The updated TAN15 provides guidance on the design and implementation of SuDS in new developments.

The updated TAN15 is yet to be published but aims to provide guidance on how to consider flood risk and coastal erosion in the planning process, ensuring that development decisions take into account the risks posed by these hazards and promote sustainable and resilient development. A newer version was consulted on in early 2023 with further amendments due to be implemented by the end of June 2023, but this has also been delayed with uncertainty relating to full implementation.

Available here <https://www.gov.wales/further-amendments-technical-advice-note-tan-15-development-flooding-and-coastal-erosion>

This TAN provides technical guidance which supplements the policies set out in Planning Policy Wales, along with supporting flood mapping. The new TAN 15 seeks to evolve from the 2004 precautionary approach to a plan-led, risk-based decision making and resilience. It provides advice on the consequences of the risks and adapting to and living with flood risk. This approach can be input into the prioritisation of flood actions within the Local Strategy.

C.1.6 National Strategy for Flood and Coastal Erosion Risk Management in Wales, 2020

The 2020 National Strategy on Flood and Coastal Erosion Risk Management (FCERM) for Wales, replaces the 2011 Strategy and is prepared under the terms of the Flood and Water Management Act 2010. The strategy aims to provide a coordinated and integrated approach to flood and coastal risk management, building on existing initiatives and programs to create a more effective and sustainable system for the future.

The strategy sets out five main objectives:

- A. Improving our understanding and communication of risk
- B. Preparedness and building resilience
- C. Prioritising investment to the most at risk communities
- D. Preventing more people becoming exposed to risk
- E. Providing an effective and sustained response to events

To achieve these objectives, the strategy outlines a range of measures, including improving data and knowledge of flood and coastal erosion risk, developing new approaches to risk management, improving emergency planning and response, and promoting sustainable development and land use planning.

This National Strategy sets out a range of measures and assigns responsibility to different bodies. Local authorities in Wales are expected to lead on three measures of relevance to the development of the Local Strategy:

- **To ensure the public and stakeholders are using the most up to date information on flood risk and coastal erosion. Risk Management Authorities are required to update**

maps, plans and data in line with the schedule set out in Figure 12 of the National Strategy.

- **To support decision making and reflect reduced risk from investment NRW and Local Authorities will work together to ensure that by end of 2021 the National Asset Database will contain data on FCERM assets owned or designated by Risk Management Authorities.**
- **To support decision making and reflect reduced risk from investment NRW will work with Local Authorities to develop a process to ensure all updates are incorporated in the National Asset Database within 6 months of any completed works or changes otherwise required, by the end of 2021.**

C.1.7 Future Wales – the National Plan 2040

The National Plan for Wales 2040 is a strategic document that outlines the Welsh government's vision for the future of the country. It is a long-term plan that aims to promote sustainable development, improve well-being, and reduce inequality.

The document outlines several goals for the next two decades, including achieving net-zero carbon emissions, improving digital connectivity, and investing in infrastructure. It also sets out specific policies and initiatives to achieve these goals, such as investing in renewable energy, expanding public transportation, and improving access to affordable housing

The National Plan also includes a focus on managing natural resources sustainably, including reducing the risks of flooding and coastal erosion. The plan aims to enhance the natural environment, increase biodiversity, and manage land use in a way that supports sustainable economic growth. It also recognizes the importance of working with communities and stakeholders to develop solutions that address the challenges of climate change.

Policy 8 of the Spatial Strategy of the National Plan states that flood risk management enables and supports sustainable strategic growth and regeneration in National and Regional Growth Areas will be supported. The Welsh Government will work with Flood Risk Management Authorities and developers to plan and invest in new and improved infrastructure, promoting nature-based solutions as a priority. Opportunities for multiple social, economic and environmental benefits must be maximised when investing in flood risk management infrastructure. It must be ensured that projects do not have adverse impacts on international and national statutory designated sites for nature conservation and the features for which they have been designated.

C.1.8 NRW Flood Risk Management Plan for Wales, 2023

The Plan is separated into an overarching National Section alongside six place based Local Sections which cover the different operational areas within NRW. It is therefore intended to be used as a national plan but also offer local detail to help support local plans. The Flood Risk Management Plan builds on NRW's analysis of what is at risk of flooding and sets out the priorities and measures that we propose to manage the risk of flooding to people, the environment and economic activity across Wales over the next six years.

The National Plan covers all of Wales and provides information on the scale of flood risk, as well as NRW's priorities in managing the risk of flooding, and measures that we propose to take over the next six years. The FRMP covers flooding from rivers, reservoirs and the sea. It does not include flooding from surface water and smaller watercourses, for which Lead Local Flood Authorities (LLFAs) have powers and take the lead.

C.2 Regional

C.2.1 Severn Estuary Shoreline Management Plan, 2017

The Severn Estuary Shoreline Management Plan 2 (SMP2) is a strategic document that outlines the long-term approach to managing flood and coastal erosion risks along the Severn Estuary. The plan is based on a collaborative effort between several key stakeholders, including local authorities, the Environment Agency, and Natural Resources Wales.

The Plan aims to manage the risks of flooding and coastal erosion along the estuary through a combination of hard engineering measures and natural flood management solutions. It takes a long-term approach, with a focus on adaptation and resilience to climate change.

C.2.2 Severn River Basin Management Plan

The Severn River Basin Management Plan outlines the current state of the Severn River Basin and provides a plan for its management in the future. The plan discusses the various challenges the basin faces, including flood risk management, water quality, and biodiversity. It identifies key stakeholders and provides an overview of the engagement process used to gather information and feedback from them.

Regarding flood risk management, the plan highlights the importance of working with partners to improve communication and coordination, promote sustainable drainage systems, and develop flood risk management plans. It also sets out a range of actions to improve flood resilience and response, including better data and monitoring, improved flood warnings, and community engagement.

C.2.3 Dŵr Cymru Welsh Water Drainage and Wastewater Management Plan,

The Drainage and Wastewater Management Plan (DWMP) is a long-term planning study which looks at drainage and sewerage needs over the next 25 years. The Plan looks at future trends and embeds an approach of working together with others to investigate and identify options for the sustainable management of the wastewater services.

Analysis carried out as part of the plan has identified that, several areas do not have sufficient sewer capacity to facilitate new development, or account for the impacts of climate change. It found that on average, Welsh Water sewage treatment works only just have sufficient capacity to treat the current sewage flows across the geography. The plan, which seeks to address these shortfalls, looks at the value of different approaches in terms of cost, impact on flooding and pollution, and the wider benefits for local people, nature, and the environment.

Welsh Water set out a hierarchy of actions to address the problems facing the water company, which include:

1. Preventing groundwater getting into sewers
2. Educational and information campaigns for customers on how they can help
3. Surface water removal from sewers with storm overflows and building bigger pipes
4. Pumps and treatment works to manage future developments and population changes

They highlight the importance of working alongside Local Authorities to achieve the above, for a coordinated approach.

C.2.4 South East Wales Strategic Flood Consequence Assessment (Stage 1), 2022

The Strategic Flood Consequence Assessment for South East Wales was commissioned by the Local Planning Authorities in South East Wales in 2021 to begin the three stage process to identify potential flood risk from all sources to influence local development plans and land allocation decisions. The strategy provides information for the assessment as its role as the LLFA.

The Stage 1 SFCA is a desk-based study which collates existing information to undertake a broad assessment of potential flood risks across the entire study area from all sources of flooding. The study identifies areas at potential high risk from flooding as well as providing details of historical flood events and any details of any flood risk management structures or procedures present. The SFCA also provides information on the opportunities to slow and store water as part of natural flood management schemes as well as guidance on implementing TAN-15 and managing flood risk in a development site.

C.3 Local

C.3.1 Newport Local Development Plan, 2015

The Planning and Compulsory Purchase Act 2004, or as amended, requires Newport City Council to prepare a Local Development Plan (LDP). The current plan will guide development within Newport up to 2026.

Within the plan, Flood Risk is highlighted as a key issue impacting development within Newport, it states *'Flood Risk is of significance in that Newport sits astride a major river, the Usk, and borders the Severn Estuary. New development is, however, already improving defences for existing development.'* The Replacement Local Development Plan Preferred Strategy, which was published in October 2023 and includes the draft update to SP3. Changes effectively reflect SP3 while updating the wording and supporting text.

Within the LDP Policy SP3 Flood Risk, states:

Newport's coastal and riverside location necessitates that development be directed away from areas where flood risk is identified as a constraint and ensure that the risk of flooding is not increased elsewhere. Development will only be permitted in flood risk areas in accordance with national guidance. Where appropriate a detailed technical assessment will be required to ensure that the development is designed to cope with the threat and consequences of flooding over its lifetime. Sustainable solutions to manage flood risk should be prioritised. The preference for the application of sustainable solutions to manage flood risk can be CaRRied forward into the flood action plan.

C.3.2 Preliminary Flood Risk Assessment (PFRA), 2011

NCC were required to produce a PFRA in line with 2009 Flood Risk Regulations as discussed within the National Policy review section.

A significant aspect of the Preliminary Assessment Report is to evaluate the location of any Indicative Flood Risk Areas within the authority area and provide an assessment of present and future flood risks to this area.

The PFRA report did not identify any areas of significant flood risk that satisfied the significant criteria set by the Welsh Government and the Department for Environment, Food and Rural Affairs (DEFRA) within the administrative boundary of NCC. As a result, NCC were not required to produce flood risk maps, flood hazard maps or flood risk management plans as part of the PFRA process.

However, there is one Indicative Flood Risk Area within Newport in the area of Rogerstone, which is a cross boundary flood risk area shared with the neighbouring LLFA of Caerphilly County Borough Council. Even though this area has been removed from the PFRA process as it was deemed as not having a significant present or future flood risk, this area needs to be reviewed once the flood risk and flood hazard maps are published.

High-level costing of measures has been completed using the Environment Agency's long term costing tool for flood and coastal risk management¹⁷ where sufficient information is available, or an indicative cost range has been estimated on the basis of similar types of schemes.

Under the Flood Risk Regulations, NCC were required to review, and if necessary update, the Preliminary Assessment Report in June 2017. The findings of this were that in the five years between the initial PFRA and the update, there had been no significant flooding event in Newport.

There is one Indicative Flood Risk Area within Newport in the area of Rogerstone, which is a cross boundary flood risk area shared with the neighbouring LLFA of Caerphilly County Borough Council. Even though this area has been removed from the PFRA process as it was deemed as not having a significant present or future flood risk. This area will be reviewed in the process of Local Strategy Development to ensure that Rogerstone is covered appropriately by the flood measures and actions.

C.3.3 Update to the preliminary flood risk assessment report for Newport City Council, 2017

The preliminary flood risk assessment (PFRA) for Newport City Council was reviewed during 2017, using all relevant current flood risk data and information, and agreed with Natural Resources Wales on 23 November 2017.

There has been a review of flooding experienced since the publication of the first Preliminary Flood Risk Assessment Report in 2011 and there have been no floods experienced that caused locally significant harmful consequences.

There has been no new information identified since the publication of the first Preliminary Flood Risk Assessment Report in 2011 that has led to a change in understanding of future flood risk. The cycle 1 FRAs in Wales will be reviewed as part of a detailed consolidated PFRA that will cover all sources of flood risk by 22nd December 2018.

C.3.4 Environmental Assessment of Plans and Programmes (Wales) Regulations 2004 – requirement for a Strategic Environmental Assessment (SEA)

A Strategic Environmental Assessment (SEA) is an approach used to ensure environmental issues are assessed and integrated at the earliest opportunity in the decision making process when developing this Local Strategy.

It is a legal requirement in the UK for certain plans and programmes stipulated by the SEA Directive 2001/42/EC, to undergo Strategic Environmental Assessment (SEA). The SEA Directive is implemented in Wales by the Environmental Assessment of Plans and Programmes (Wales) Regulations 2004.

As the Local Strategy is a ‘statutory plan’, a Strategic Environmental Assessment is needed, which will appraise the potential environmental impacts of the Local Flood Risk Management Strategy and its objectives, prior to its approval and formal adoption.

The purpose of Strategic Environmental Assessment is to provide for a high level of protection of the environment, by ensuring the integration of environmental considerations into the preparation of the Local Strategy and to contribute to the promotion of sustainable development and environmental protection.

C.3.5 Conservation of Habitats and Species Regulations 2017 – requirement for a Habitats Regulations Assessment (HRA)

In Wales, the Conservation of Habitats and Species Regulations (SI 1012, 2017), often known as the Habitats Regulations, implements the EU Habitats Directive (Directive (92/43/EEC) on the Conservation of natural habitats and of wild flora and fauna) and certain elements of the Birds Directive (2009/147/EC). This legislation provides the legal framework for the protection of habitats and species of European importance in Wales and England. Regulation 9(5) of the Habitats Regulations requires that a competent authority must consider the requirements of Habitats Directive in exercising any of its functions. Article 6(3) of the Habitats Directive defines the requirements for assessment of plans and projects potentially affecting European sites.

Measures to address specific flood risk identified during the implementation of this Strategy may also require separate Habitats Regulations Assessment, depending on the measure proposed.

Appendix D

Public Consultation Outcomes

To be completed prior to publication of final document, following statutory public consultation

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Appendix E

Glossary of Terms used within this Local Strategy

Accretion:	The gradual extension of land by natural forces, as in the addition of sand to a beach by the sea, or the extension of a floodplain through the deposition of sediments by repeated flooding.
Change Adaptation:	Adjustments in natural or human systems in response to actual or expected climate change, or its effects, which moderates harm or exploits beneficial opportunities.
Climate Change Mitigation (also known as Decarbonisation):	Intervention to reduce the sources of, or to enhance the sequestration of, greenhouse gases. Coastal adaptation: The process of adjustment due to actual or expected climate change. Adaptation seeks to moderate or avoid harm to communities
Coastal erosion:	The wearing away of land and the removal of beach or dune sediment by wave action, tidal currents, wave currents, drainage, weathering or high winds.
Coastal erosion risk:	A measure of potential coastal erosion in terms of likelihood and impact
Coastal erosion risk management authority	Defined under the Coastal Protection Act 1949, as amended through Schedule 2 of the Flood and Water Management Act 2010. Authorities with certain powers to carry out coastal protection work. In Wales, these are the coastal Local Authorities and NRW.
Coastal Risk Management Programme	This programme has been established to help Coastal Local Authorities deliver actions in the Shoreline Management Plans.
FCERM Business Case Guidance	The Welsh Government guidance on preparing a business case for FCERM capital funding, issued to Local Authorities and NRW and published by the Welsh Government
Flood and Water Management Act, 2010	An Act of Parliament updating and amending legislation to address the threat of flooding and water scarcity.
Flood and Coastal Erosion Committee (FCEC)	An independent advisory body to the Welsh Ministers and Welsh Risk Management Authorities on matters relating to flood and coastal erosion risk management
Flood Risk Assessment Wales (FRAW):	A national assessment of risk from all sources of flooding for public and professionals.
Flood and Coastal Erosion Risk Management (FCERM)	The management of all aspects of flood and coastal erosion risk through understanding risk (probability and consequence) and seeking to modify these factors to reduce its impacts.
Green infrastructure	Provides flood risk management solutions, traditionally done with hard engineering, by utilising the natural properties of native vegetation. Green measures involve exclusive use of natural materials to manage risk.
Green-grey interventions	Enhancement of grey infrastructure projects to create and deliver environmental/ biodiversity benefits. Green-Grey measures use natural materials in combination with traditional engineered materials to reduce risk.
Groundwater	Water held underground in the soil or in pores and crevices in rock. Hybrid schemes: The use of Natural Flood Management alongside traditional interventions
Internal Drainage District (IDD)	An operating authority which is established in areas of special drainage need in England and Wales with permissive powers to

	undertake work to secure clean water drainage and water level management within drainage districts.
Lead Local Flood Authority (LLFA)	Local Authority (the County Council or County Borough Council) for the area as defined in the Flood and Water Management Act
Likelihood	A term describing the chance of something happening, normally in terms of very low, low, medium or high likelihood, and with the everyday phrases ‘possible but not expected’, ‘possible’, ‘probable’ and ‘expected’. Can also be expressed as a percentage, e.g. 1% chance of flooding each year.
Local Resilience Forum	The principal mechanism for multi agency collaboration to establish and maintain effective multi agency arrangements to respond to emergencies and to minimise the impact of those emergencies on the public, property and environment.
Main River	A watercourse shown as such on the Main River Map, and for which NRW has responsibilities and powers, to protect, risk of life where there is real evidence of a flood risk.
Maintenance	Work done to preserve the condition of a defence and maintain a standard of protection.
Measure	Actions specified to achieve the objectives for managing flood and coastal erosion risk.
National Asset Database	A database of flood assets managed by NRW. Intended to improve the analysis and mapping of risk and maintenance of those assets. It will hold data on flood assets maintained by Risk Management Authorities, with detail on their location, ownership and condition.
National Coastal Erosion Risk Management (NCERM):	The National Coastal Erosion Risk Management map shows the estimated erosion extents based on current understanding. The maps show scenarios under the agreed SMP policy as well as under ‘no active intervention’ over the 3 SMP periods.
Nature Based Solutions	Natural Flood Management (NFM) is sometimes referred to as nature based solutions, particularly in the Natural Resources Policy, however, the NFM term is more widely used and recognised in flood risk management.
Natural Flood Management (NFM)	Measures that help to protect, restore and emulate the natural functions of catchments, floodplains, rivers and the coast. NFM takes many different forms and can be applied in urban and rural areas, and on rivers, estuaries and coasts. This term covers both coastal and flood risk management solutions in this document.
Ordinary watercourse	All watercourses that are not designated as Main River, and which are the responsibility of Local Authorities or, where they exist, Internal Drainage Boards.
Risk Management Authority (RMA)	A Welsh Risk Management Authority is defined in Section 6 of the Flood and Water Management Act 2010 as NRW; a Lead Local Flood Authority, a district council for an area where there is no unitary authority, or a highway authority wholly in Wales; an internal drainage board for an internal drainage district that is wholly or mainly in Wales; a water company that exercises functions in relation to an area in Wales.
Recovery	The process of rebuilding, restoring and rehabilitating a community following an incident.
Shoreline Management Plan (SMP)	A large scale assessment of the risks associated with coastal processes and helps reduce these risks to people and the

	development, historic and natural environments. Shoreline Management Plans are based on sediment cell boundaries relating to the movement of sand and shingle along the coast.
<i>Sustainable Drainage System (SuDS)</i>	Approach to surface water management which helps to deal with excesses of water by mimicking natural drainage processes.
<i>Surface water flooding</i>	Also known as pluvial flooding. When the rate of rainfall exceeds the rate that water can infiltrate the ground, soil or drainage systems.
<i>Surface water runoff:</i>	The amount or rate of water sheeting off land into watercourses or causing flooding elsewhere.
<i>Technical Advice Note (TAN) 15 – Development and Flood Risk:</i>	TAN 15 supports Planning Policy Wales and provides advice regarding development on flood plains, including consideration of flood risk from all sources.
<i>Wider benefits:</i>	Wider benefits help to deliver the Wellbeing of Future Generations objectives providing additional gain. In the context of this Strategy, those gains or benefits would be through the delivery of flood and coastal erosion risk management. This means that aside from reducing the flood or coastal erosion risk to a community, a scheme may deliver other benefits such as recreation, tourism and/or biodiversity.

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