

Introduction- why do we need a flood plan?

- A global , national and local increase in extreme weather events
- Locally we have an increased risk of generally low-level, flooding events
- Previous major flood events highlight need to prepare for such events



Different Types of Flood Risk

Rivers

Sea

Surface Water



Cowbridge Rd

December 1979 River Flood



1 in 80 yr - 1.25% River Flood Event contained by the flood prevention measures

Communities at Risk Register : Riverside

Fluvial (River)	Properties at Risk
30 Year Storm	2763
100 Year Storm	3225
1000 Year Storm	4404
Pluvial (Rainfall)	Properties at Risk
30 Year Storm	4
100 Year Storm	22
1000 Year Storm	544
Tidal (Coastal)	Properties at Risk
30 Year Storm	1746
100 Year Storm	2506
1000 Year Storm	2903

Source	Rank in Wales
Fluvial	3
Pluvial	265
Tidal	10
Overall	7

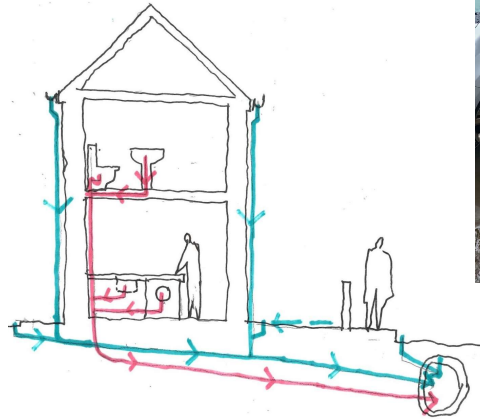


Community flood plan

Severn Grove, Romilly Crescent & Conway Road Community Flood Plan

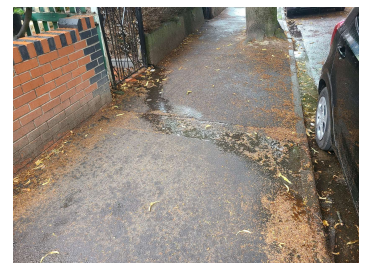
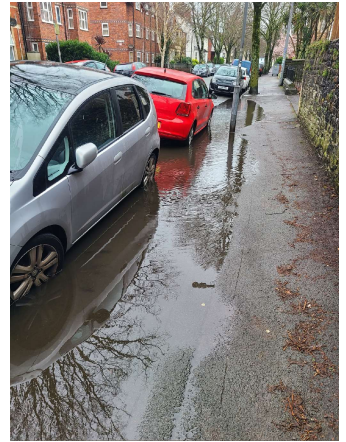
Typical drainage issues

- Surface water flooding in places with road gullies (drains) becoming blocked with leaves and other detritus, (and sometimes covered by vehicle tyres), and flooding the road and pavement locally particularly outside the Coop.
- Tree roots can raise gutters and lead to ponding in the road and pavement such as in Conway Road and Severn Grove. (Note trees give us many benefits so they do not need removal, just better management of hard surfaces around them).
- Low risk of river flooding with cellars and ground floors vulnerable.
- Most roofs and some gardens and car parks drain into the combined sewer.
- There is too much non-porous hard surfacing in gardens and car parks.
- There are too few soakaways in gardens and car parks.



Surface (Rain) Water and Foul Water (from WCs & sinks) are piped separately but discharge into the same sewer

At times of heavy rainfall, the sewer can exceed capacity and the overflow would contain both surface and foul water.



Legend

Flood Risk from Surface Water & Small Watercourses

- High
- Medium
- Low



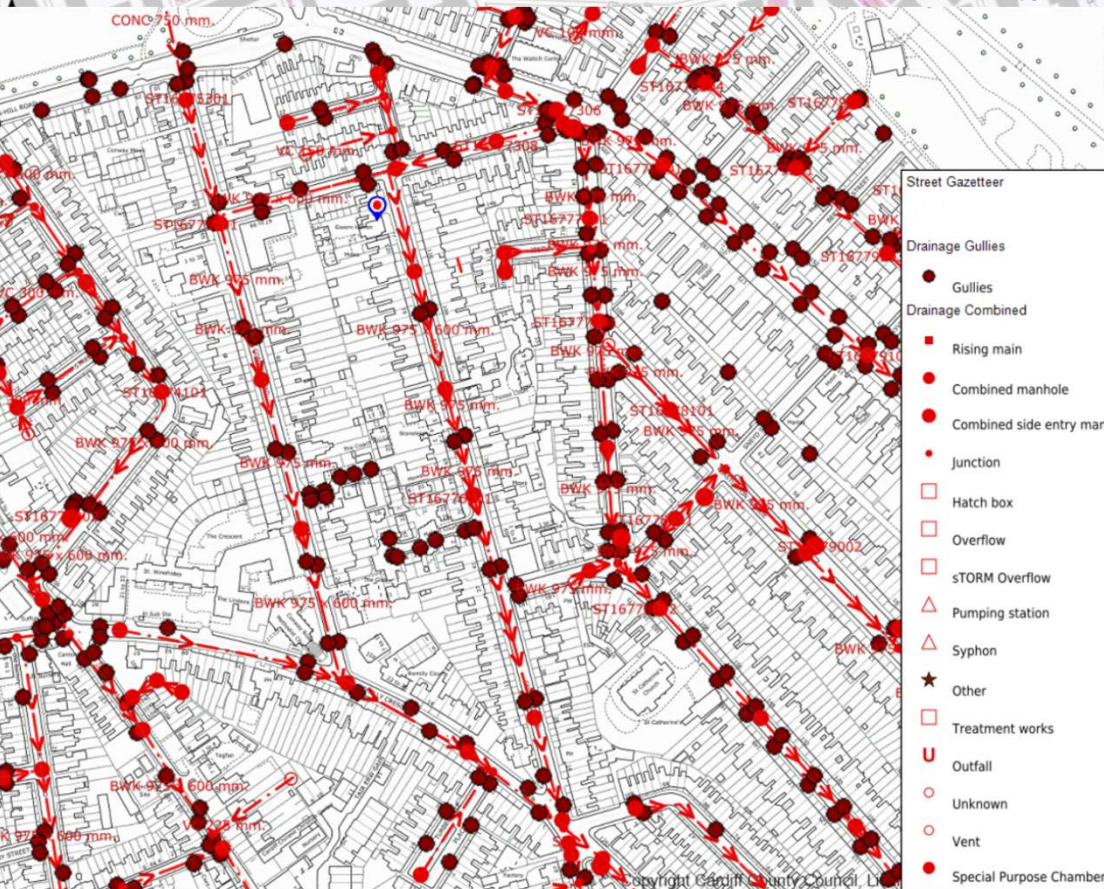
Flood risk*	Surface water
High	Greater than 3.3% chance each year (greater than 1 in 30)
Medium	Risk between 1% and 3.3% chance each year (1 in 30 to 1 in 100)
Low	Risk between 0.1% and 1% chance each year (1 in 100 to 1 in 1000)
Very Low	Risk less than 0.1% chance each year (Less than 1 in 1000)

*Taken from NRW information

Surface Water Flood Risk

Scale at A3: 1:2,500
Date: 15/04/2024

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- Street Gazetteer**
- Gullies
 - Drainage Combined
 - Rising main
 - Combined manhole
 - Combined side entry man
 - Junction
 - Hatch box
 - Overflow
 - sTORM Overflow
 - △ Pumping station
 - △ Syphon
 - ★ Other
 - Treatment works
 - U Outfall
 - Unknown
 - Vent
 - Special Purpose Chamber

Cyngor Caerdydd
Cardiff Council



Enter map title
Scale: 1:1:2500
Date: 2024-05-02 19:08:45
Coordinates: 316605, 177106
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Ordnance Survey AC0000816513 (2023).

Legend

Flood Risk from the Sea

- High
- Medium
- Low

Flood risk*	Sea
High	Greater than 3.3% chance each year (greater than 1 in 30)
Medium	Risk between 0.5% and 3.3% chance each year (1 in 30 to 1 in 200)
Low	Risk between 0.1% and 0.5% chance each year (1 in 200 to 1 in 1000)
Very Low	Risk less than 0.1% chance each year (Less than 1 in 1000)

*Taken from NRW information



Sea Flood Risk

Scale at A3: 1:2,500
Date: 15/04/2024

0.1 0.05 0 0.1
km
British National Grid

Disclaimer
<https://naturalresources.wales/flooding/disclaimer-for-our-flood-and-coastal-erosion-risk-maps/?lang=en>

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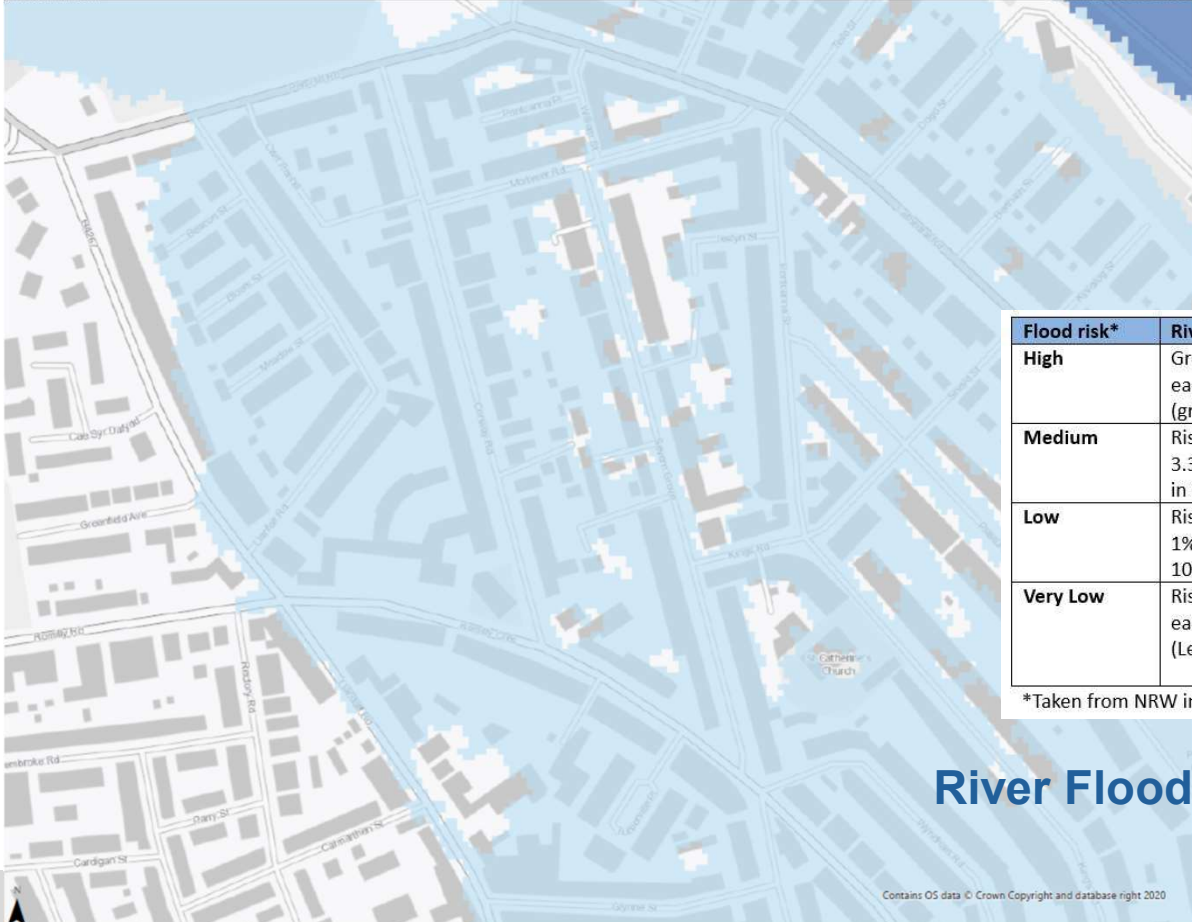
Legend

Flood Risk from Rivers

- High
- Medium
- Low

Flood risk*	Rivers
High	Greater than 3.3% chance each year (greater than 1 in 30)
Medium	Risk between 1% and 3.3% chance each year (1 in 30 to 1 in 100)
Low	Risk between 0.1% and 1% chance each year (1 in 100 to 1 in 1000)
Very Low	Risk less than 0.1% chance each year (Less than 1 in 1000)

*Taken from NRW information



River Flood Risk

Scale at A3: 1:2,500
Date: 15/04/2024

0.1 0.05 0 0.1
km
British National Grid

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Severn Grove, Romilly Crescent & Conway Road Community Flood Plan



Preparing a Local Community Flood plan

A small group of residents have prepared a draft flood plan for :

Severn Grove, Romilly Crescent & Conway Road

based on guidelines available from Natural Resources Wales

The plan sets out to :

Set out suggested actions to prepare and act before, during and after flooding

Provide information and links to websites and resources for both residents and businesses

Help to coordinate and guide volunteers.

Raise awareness of the type and level of flood risk in our streets.

Contents of the flood plan

Part 1 deals with suggested actions in advance, during and after a flood, information and contacts.

Part 2 describes the area and flood risk to surface water, river and sea.

Part 3 deals with updating the plan, documenting relevant events.

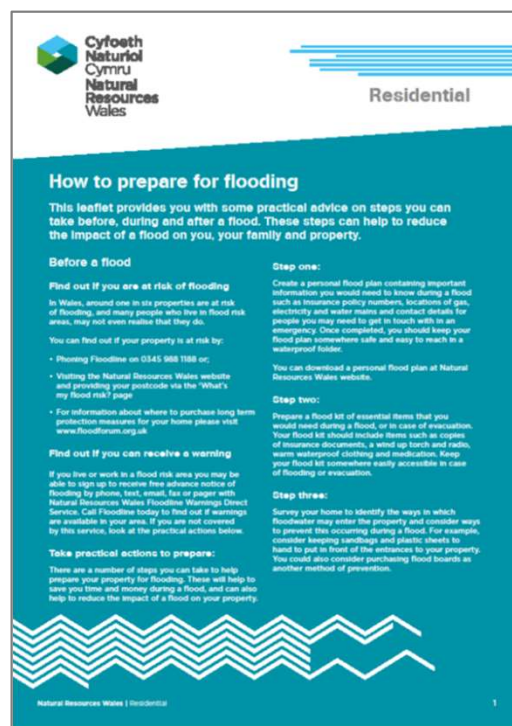
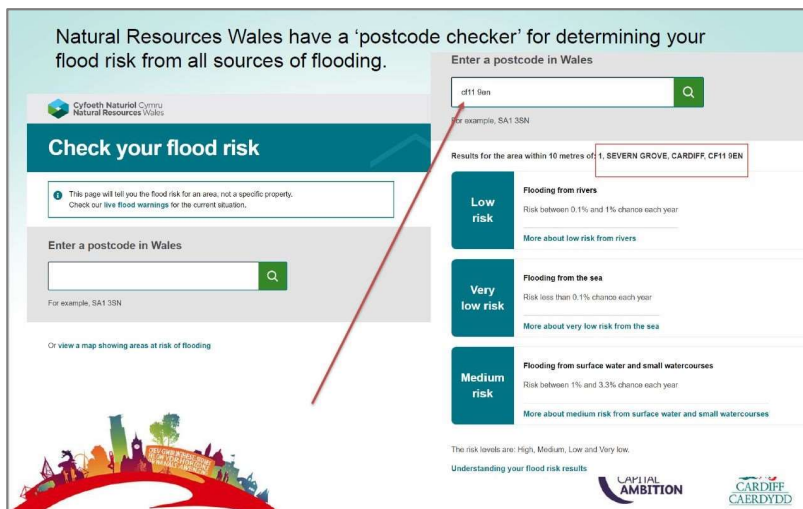


Community flood plan

Severn Grove, Romilly Crescent & Conway Road Community Flood Plan

Preparations before a flood

- Sign up to the Natural Resources Wales flood warning service online
- Keep an eye on Met office weather warnings and/or sign up for free email alerts
- Prepare a flood plan.
See naturalresources.wales/prepareforflood,
- Think about flood protection for your property. Information sources include:
 - naturalresources.wales/prepareforflood
 - http://www.ciria.com/flooding/advice_sheets.html
 - Products eg Blue Pages eg flood sacks, barriers (if necessary), adapted airbricks, non-return valves, toilet bungs.
- Keep personal items, like photo albums in a safe place away from flood risk.
- Think about a neighbour you may be able to help in a flood.
- Think about ways to improve drainage of rainfall in your garden into the ground and into storage rather than into the drains/sewer eg more planting or porous surfacing
- Keep an eye out for road gully/drain blockages and localised pooling of water. Clear leaves and detritus from gullies/drains and road gutters if possible.
- Volunteer for planting trees in River Taf catchment and Cardiff.
- Identify measure that can reduce flood risk



Severn Grove, Romilly Crescent & Conway Road Community Flood Plan

Actions immediately before and during a flood

- Begin using own personal flood plans.
- Install flood protection products where appropriate. This may include:
 - Deploying hydro sacks or barriers to property boundaries and ground floor openings.
 - Installing toilet bungs if necessary and other immediate measures.
- Turn off electricity, gas and water.
- Protect belongings and furniture on ground floor or move to upper floor if possible.
- Help neighbours where you can.
- Be aware of alerts on media and follow instructions from emergency services as necessary.



Actions after a flood

- Contact your insurance provider/s as early as possible.
- If you rent your home, contact your landlord or letting agent.
- Take photographs of the waterline and damage to the property inside and out as evidence.
- Help less able neighbours where you can.



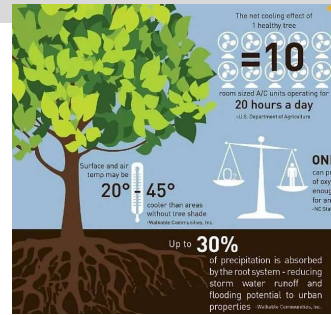
Measures to reduce the risks and impacts of flood events



Wood Street

Maintaining and increasing tree cover

- is good for the area despite leaf drop as trees:
 - absorb rainwater
 - improve microclimate cooling streets in summer
 - allow sun in in winter
 - reduce dust in the air
 - improve the appearance of our streets



Grangetown



Below street level

Rain Gardens

Rain garden on **Wood Street** in Cardiff- reservoirs to hold storm water are underneath

Construction of rain gardens in **Grangetown** underground structures hold rainwater before discharge after storms

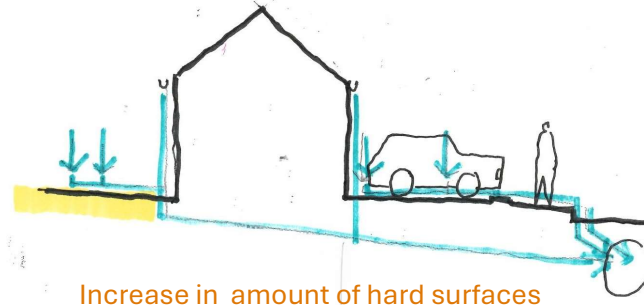


The space outside **The Old Bakery** would make an ideal Rain Garden



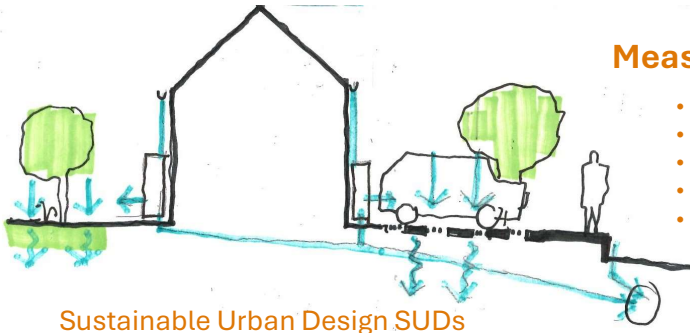
Traditional townscape

- Surface water from roofs and roads piped into sewers
- Surface water from front and rear gardens drains into ground
- Trees and plant absorb rainwater



Increase in amount of hard surfaces

- Demand for on-street car parking regularly results in front gardens being paved over
- Hard surface patios to rear gardens reduces drainage into the ground
- Less trees and plants reduce absorption of rainwater



Sustainable Urban Design SUDs

Measures to reduce flood risk

- Provide permeable parking surfaces
- Provide permeable patios
- Re-instate planting where possible
- Use rainwater butts
- Consider rain garden principles

Rain falling on the Brecon Beacons, Taff, Rhondda and Cynon valleys ends up in Cardiff



Planting trees or encouraging natural tree and scrub growth can reduce the speed of runoff and the risk of flooding down stream.



Community flood plan

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Please use a post it to tell us where there are gullies/road drains or surface water ponding that affects you

Have you any experience of flooding on your property or know of other properties flooding? If so, what?

Please let us have any comments about the draft flood plan we are proposing

Are there any other issues you want to raise?



Severn Grove, Romilly Crescent & Conway Road Community Flood Plan

Any more feedback please?

