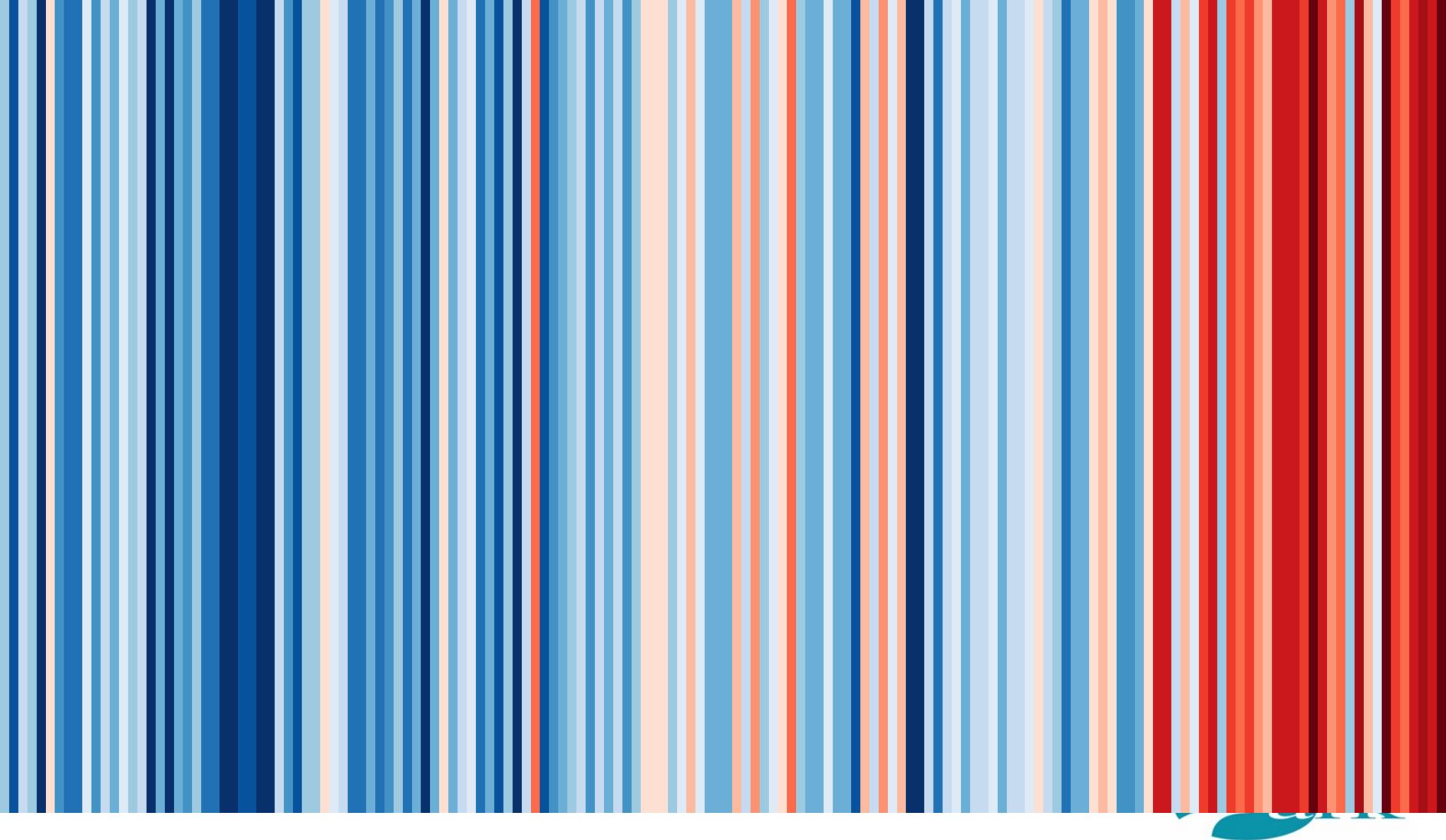


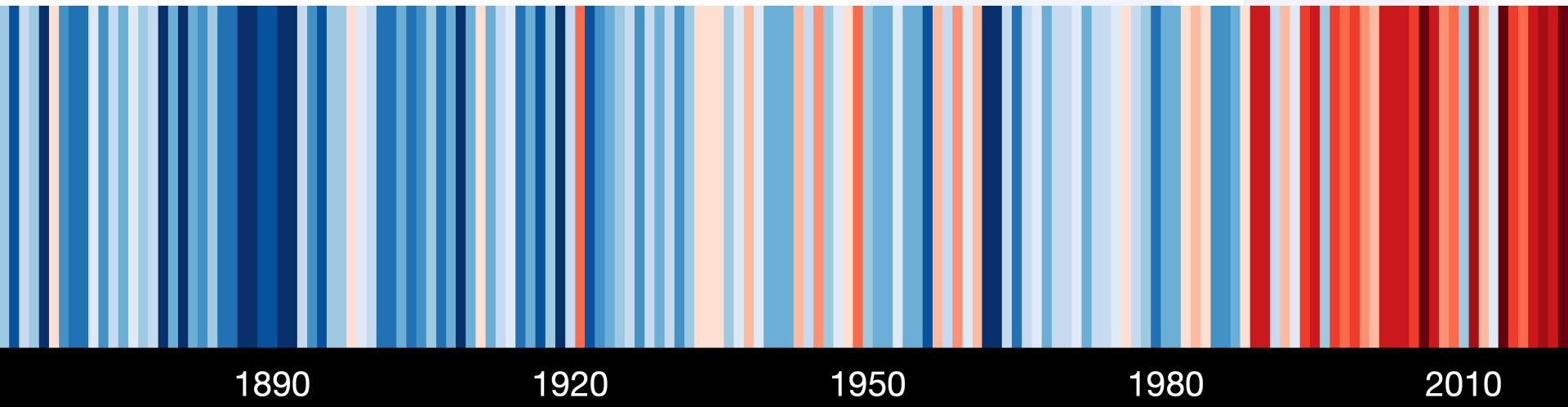
Welcome

- Why we need to rethink rain
- Example community project
- Principles for successful small SuDS
- ✓ Four pillars of SuDS
- ✓ Knowing your numbers
- ✓ The importance of partnership





Climate Stripes



Source: www.showyourstripes.info

This is the temperature record for the Kennet Valley – collected at Reading. Each stripe represents the average temperature for a single year, relative to the average temperature over the period as a whole. Shades of blue indicate cooler-than-average years, while red shows years that were hotter than average.



Rainfall is changing

The shaded area is our 'old normal'; this shows the level of rainfall we had when our average annual temperature was around 8.3 degrees.

This the amount of rain our sewers are designed to cope with.

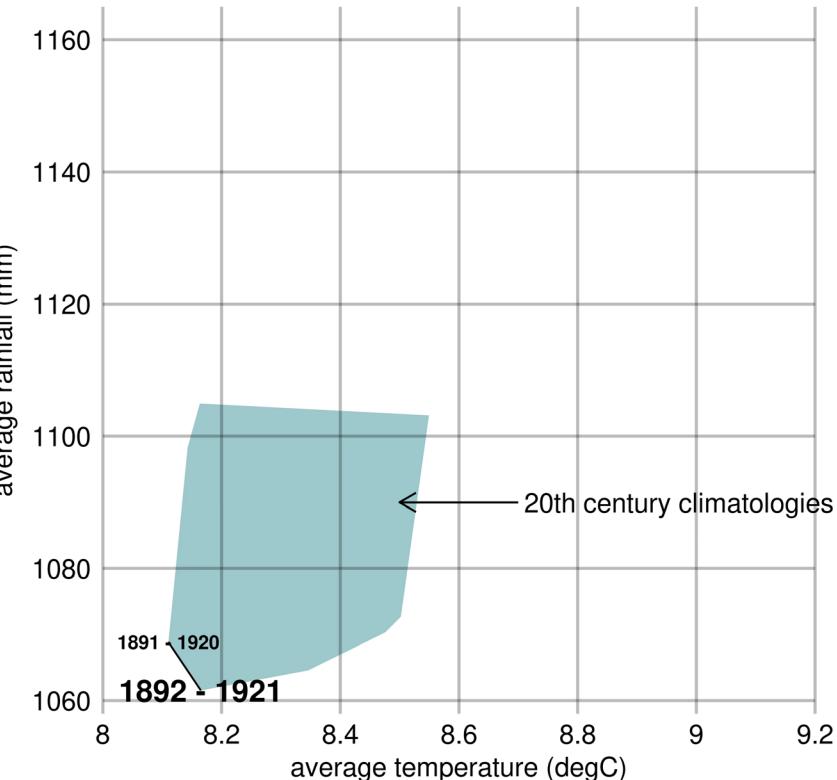
From the 1990s, as temperatures rose rainfall also increased

This shows the 'new normal' we're already experiencing.

Temperatures are still rising.

Our current infrastructure isn't designed for the expected climate.

30 year average of UK temperature and UK rainfall



Land use is changing



Newbury 1920 vs Newbury 2020 (screenshot from www.maps.nls.uk)

Our drainage network

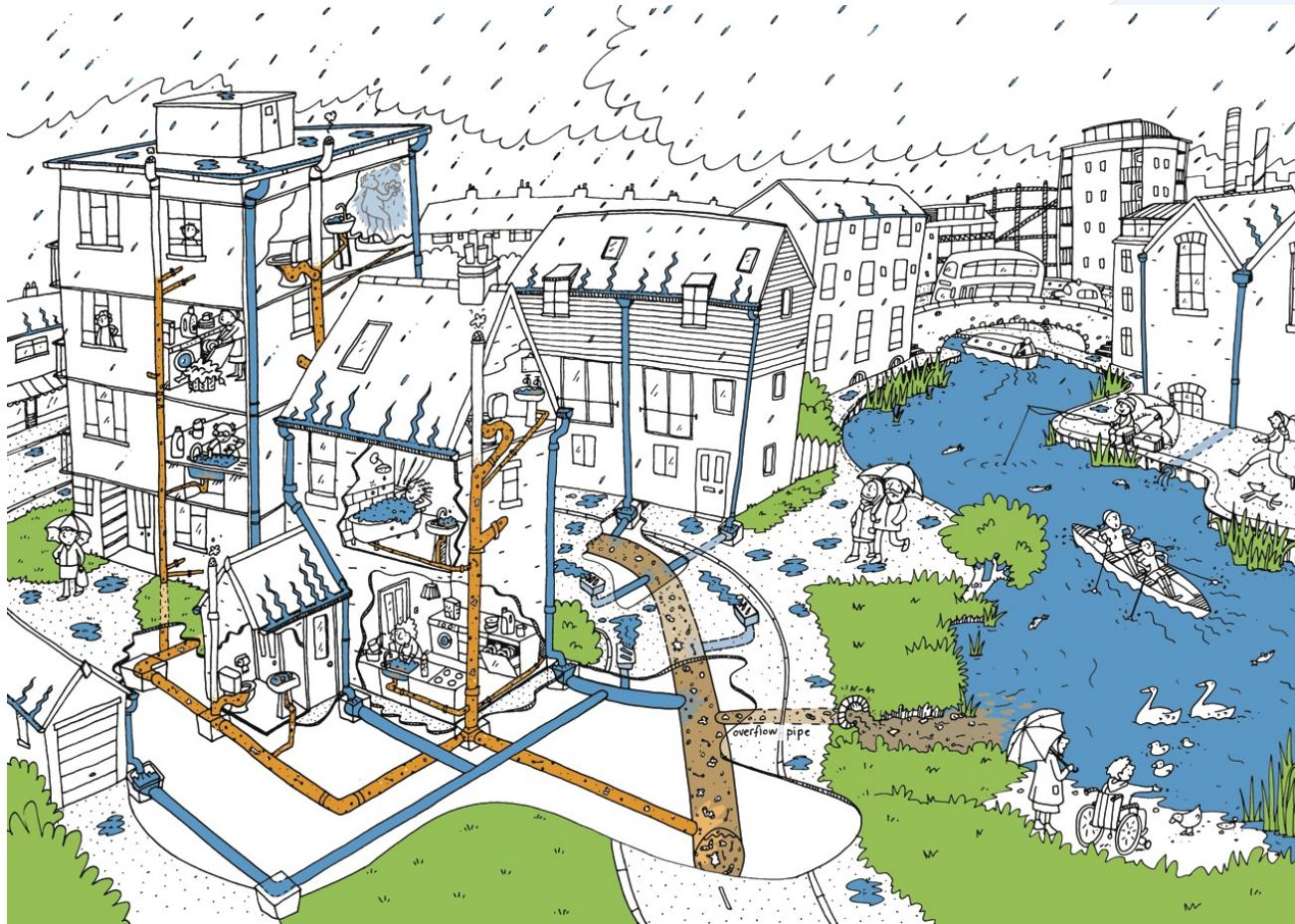


Image courtesy Thames 21

© Action for the River Kennet 2025 | www.rkennetandpang.org

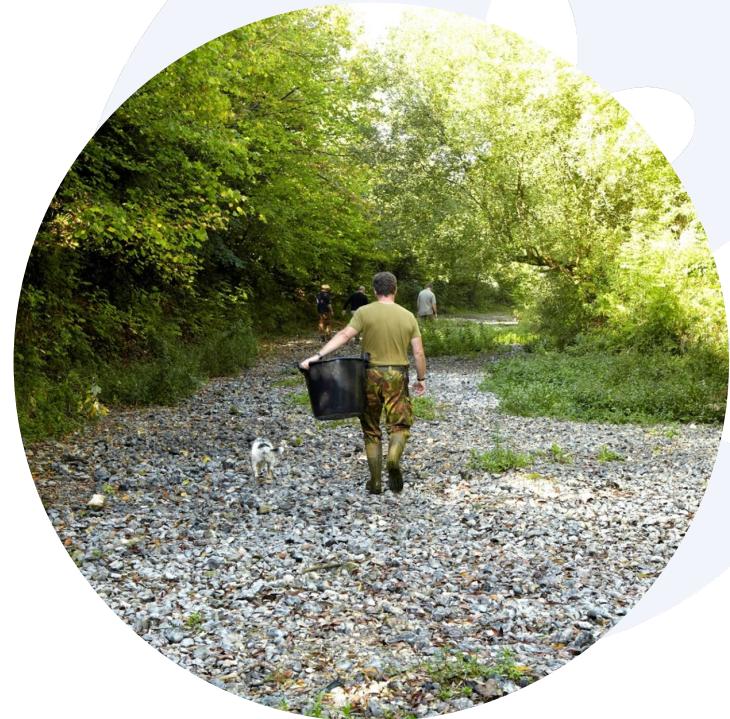


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Chalk streams are cool, clear and constant



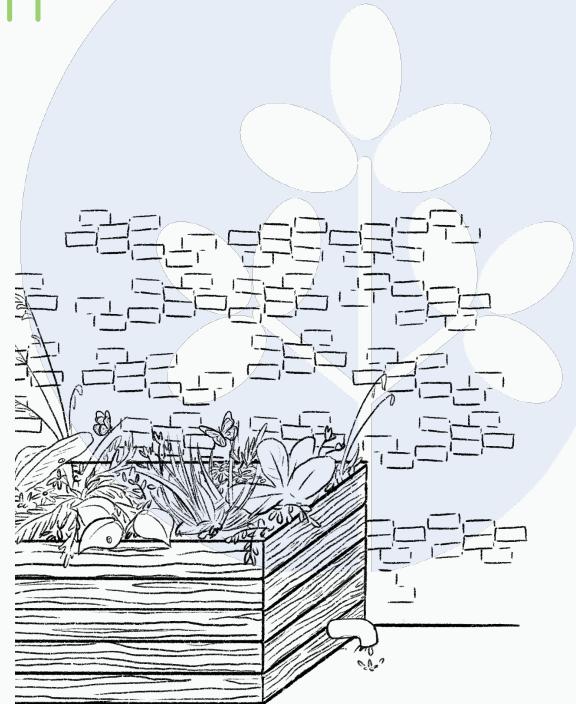
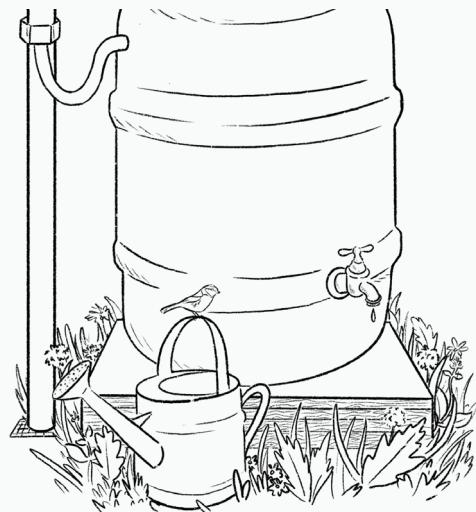
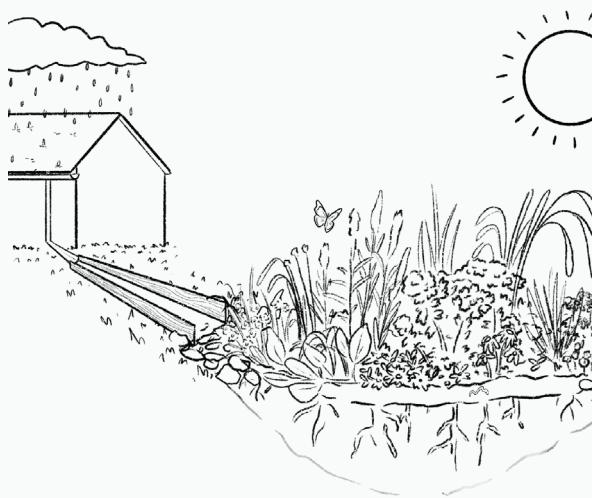
We are making them warm, murky and chaotic





Action for the River Kennet

Great Green Bedwyn Rain Gardens



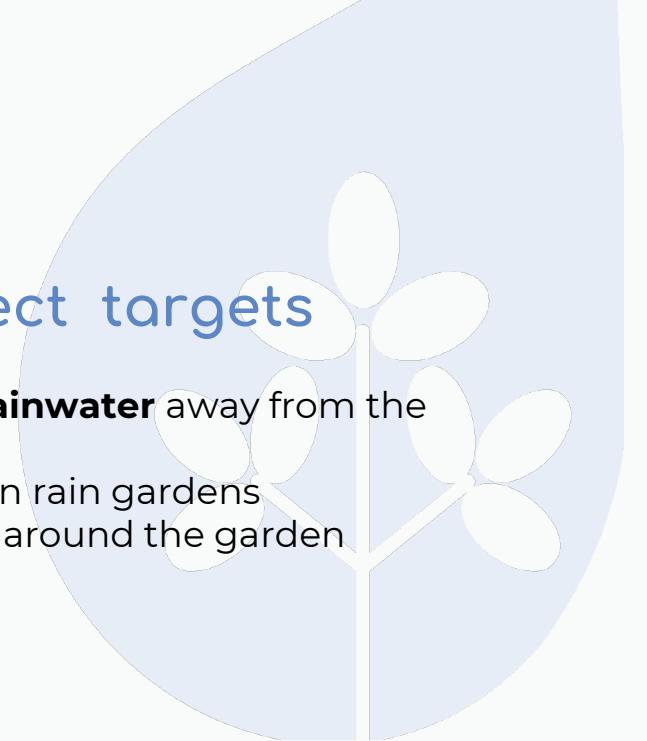
Catching rain to create a cleaner, greener more beautiful village



Action for the River Kennet

Great Green Bedwyn Rain Gardens project targets

- disconnect downpipes from 2,000 m² of roof area and **divert rainwater** away from the drainage network.
- **increase biodiversity** by adding more plants and healthy soil in rain gardens
- **Reduce water consumption** by making rainwater easy to use around the garden
- **Reduce flooding and sewer pollution** from overloaded pipes
- Create beautiful functional gardens





Action for the River Kennet

The project offered residents

- 1. Rain gardens



What is a Rain Garden?

- A **shallow free-draining, planted depression**.
- Catches rain from roofs or hard surfaces
- Allows rainwater to infiltrate slowly.
- Only holds water for 12-24 hours after heavy rain.
- A **dry feature** most of the time.

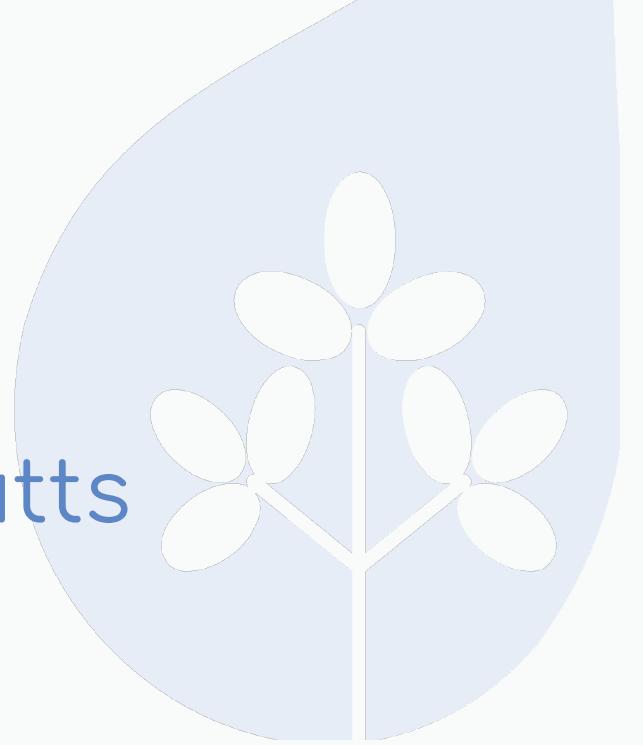




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2. Water butts





Action for the River Kennet



Water butts

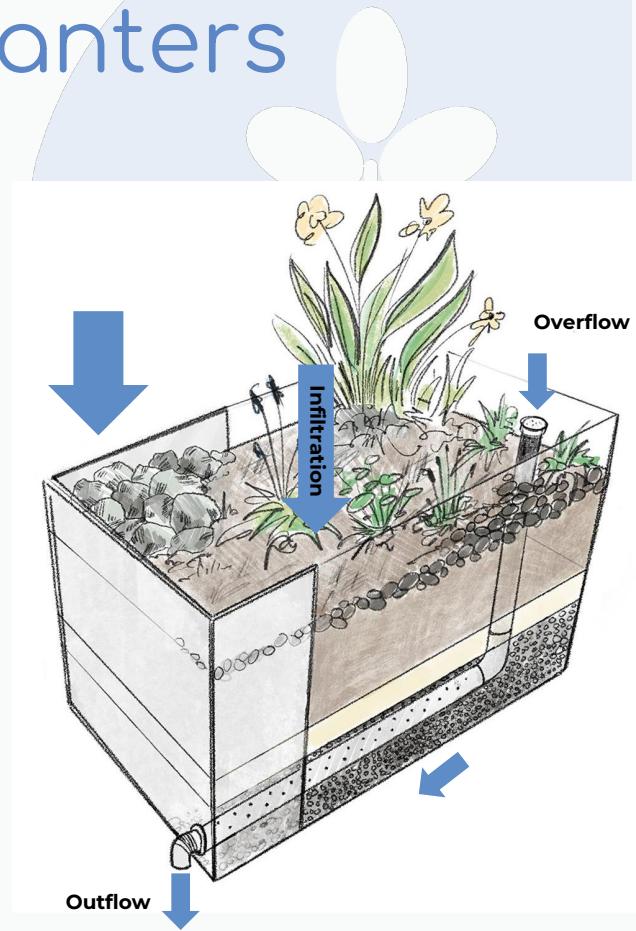
- Catch and store water for irrigation
- Can attenuate storms if you manage the overflow





Action for the River Kennet

3. Rainwater planters





Action for the River Kennet

Examples of individual rain gardens created as part of the ARK x Great Green Bedwyn Rain Gardens project





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Doctor's surgery, front garden





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Examples of individual rainwater planters created through the ARK x Great Green Bedwyn Rain Garden project





Action for the River Kennet

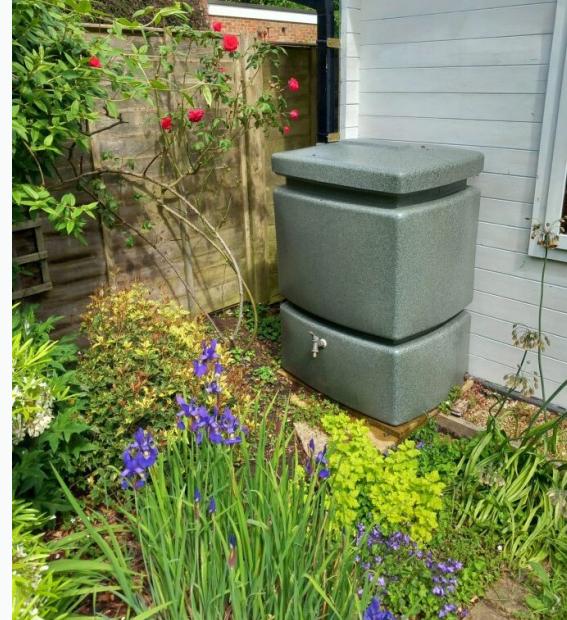
Village Hall



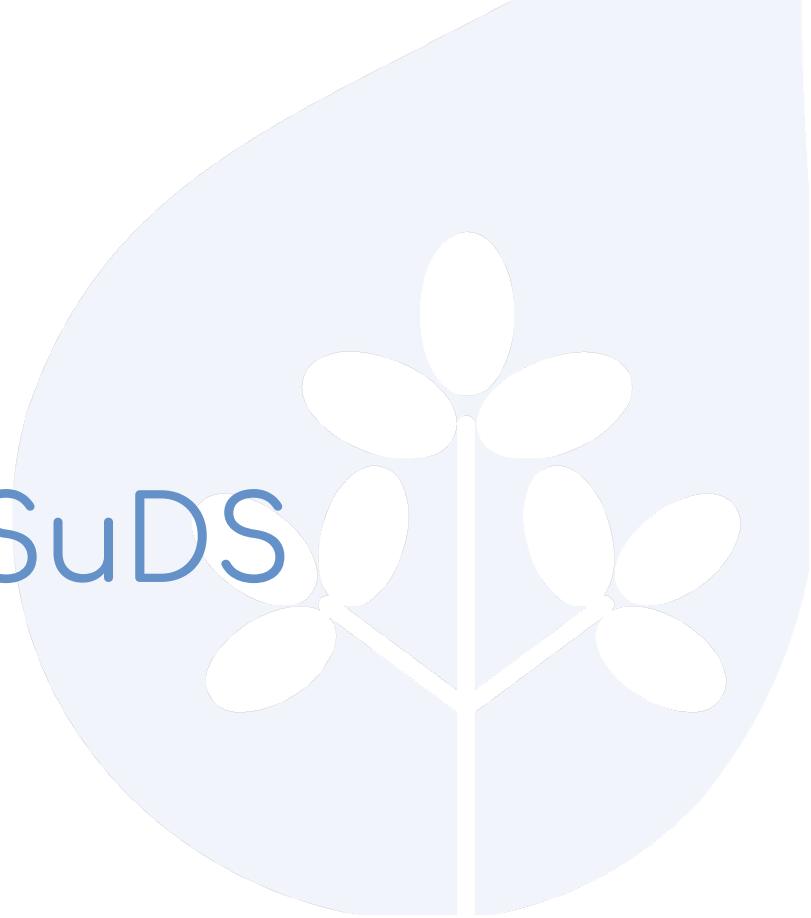


Action for the River Kennet

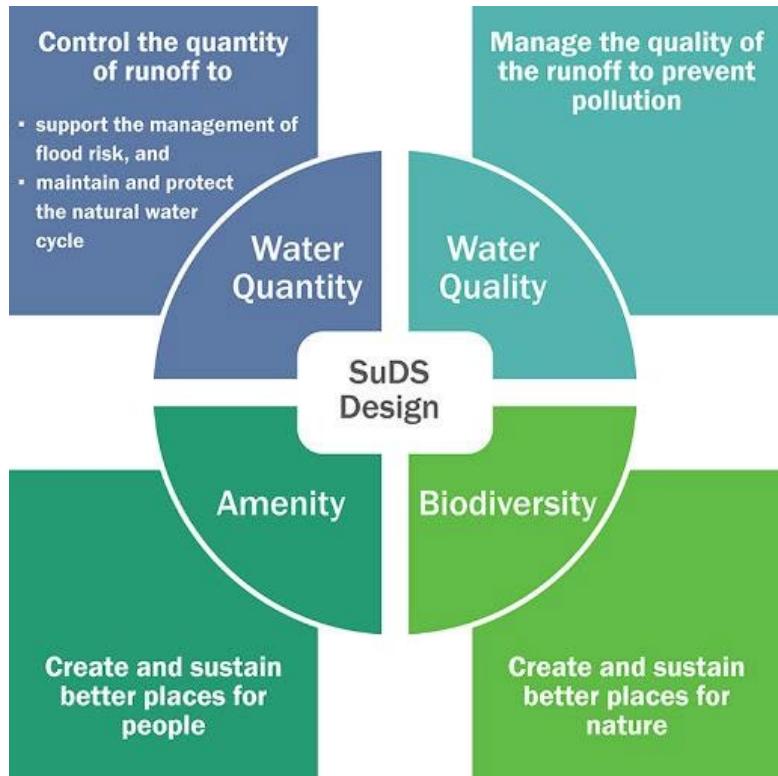
Examples of individual water harvesting



Four pillars of SuDS



Successful rainscapes (rain gardens, rain planters, attenuation features) do FOUR things



The four pillars of SuDS

SuDS manual (CIRIA)

This is a useful sense check to see if your project really is providing multiple benefits.

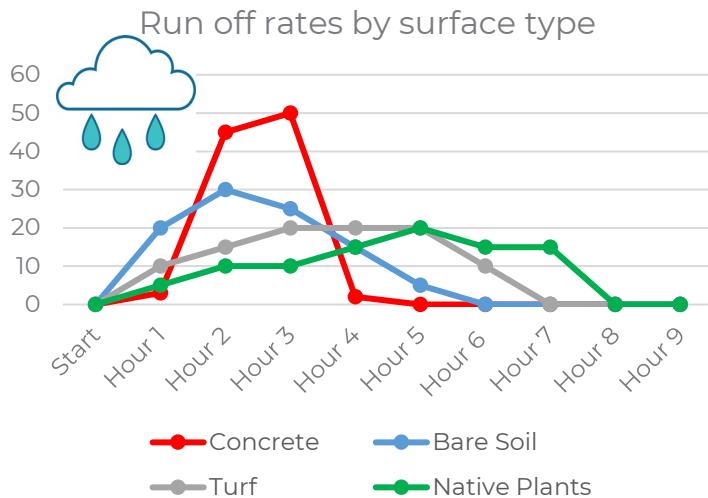
1. Helping manage water quantity



The story of Bob's coffee shop



Slow the flow, spread out the storm

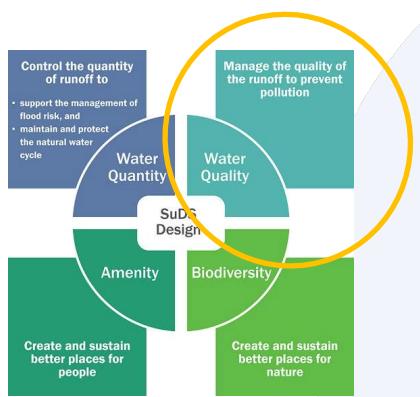


Rainwater planters capture rain, and release it slowly

2. Improving water quality



Road run off into the Shalbourne – credit

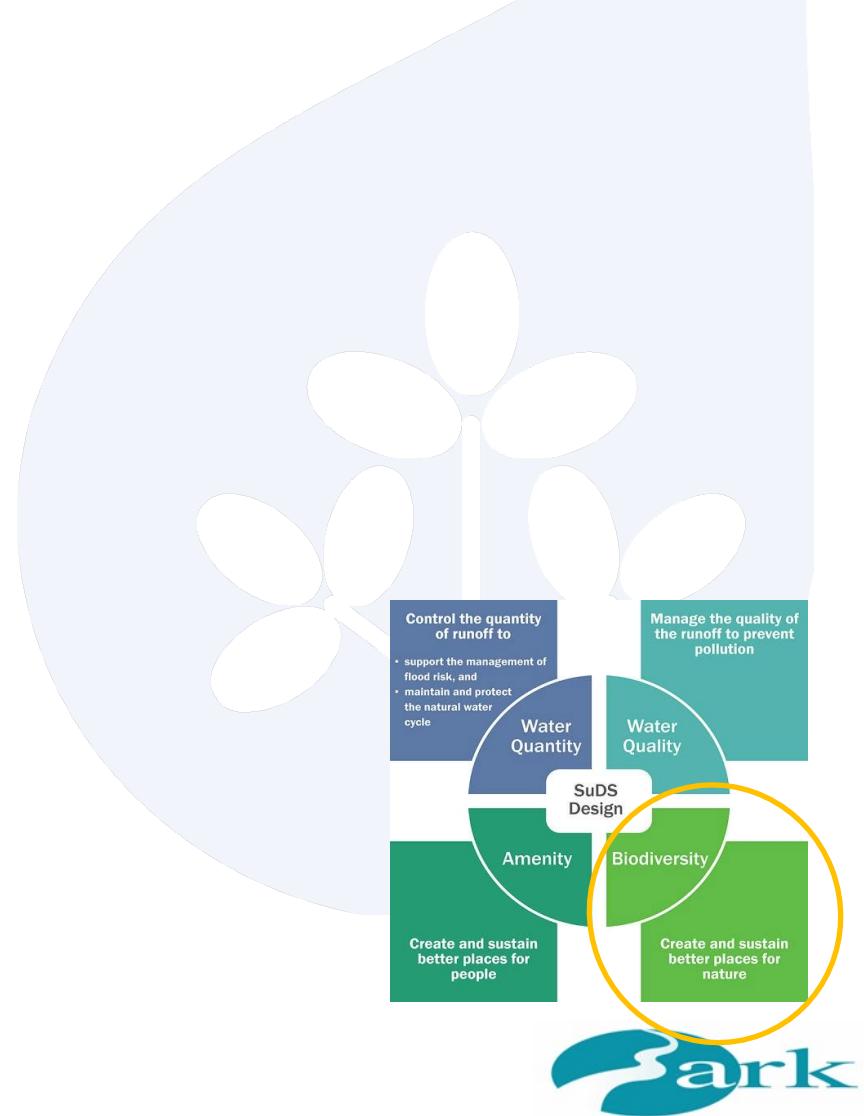


- interventions that keep rain close to where it lands
- reduce peak flow in the drainage network. This can help **reduce storm overflows from Sewage Treatment Works** and stop sewers being overloaded.
- Rain gardens allow water to soak in slowly, refilling the natural aquifer with clean water – keeping streams flowing with clean water for longer.
- Rainwater planters slow down flow and filter water through plant roots and soil, so water coming out is cleaner than water going in.

3. Improving Biodiversity

Biodiversity

- More variety of plants = more biodiversity
- Healthier soil = more biodiversity
- More variety of plant roots = cleaner water
- Have you chosen plants that will thrive?



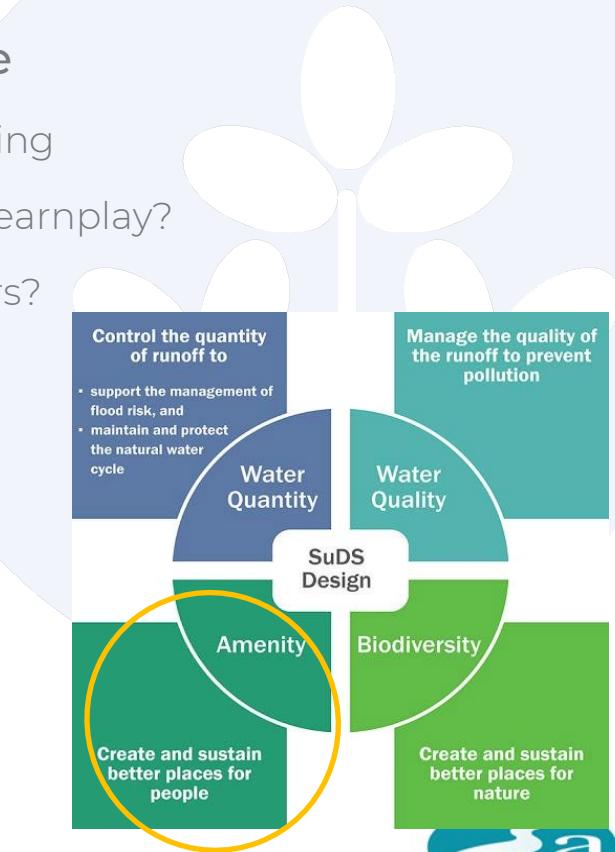
4. Adding amenity

Create and sustain better places for people

- Is the space better, prettier, greener, more interesting
- Have you provided opportunities to experiment, learnplay?
- Will it still be good next year? Five years? Ten years?

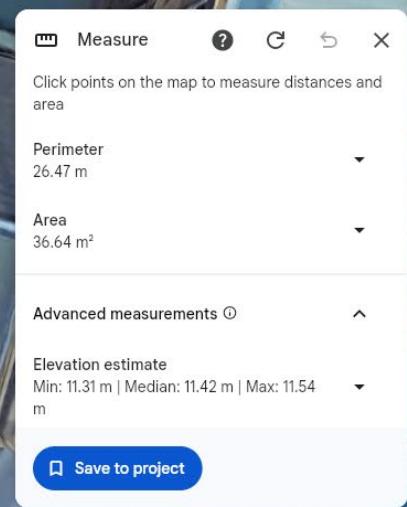


ARK projects at Shalbourne and Aldbourne St Michael Schools
Photo credits Charlotte Hitchmough, Wendy Allen



Know your numbers





Roof area (m ²)	normal' rain (mm)	Heavy rain (mm)	30 year storm (mm)
36	5	17	53
Volume (litres)	180	612	1908

The importance of partnership

- Catchment partnerships
- Projects with teams of the right experts
- - rain, plants, practical



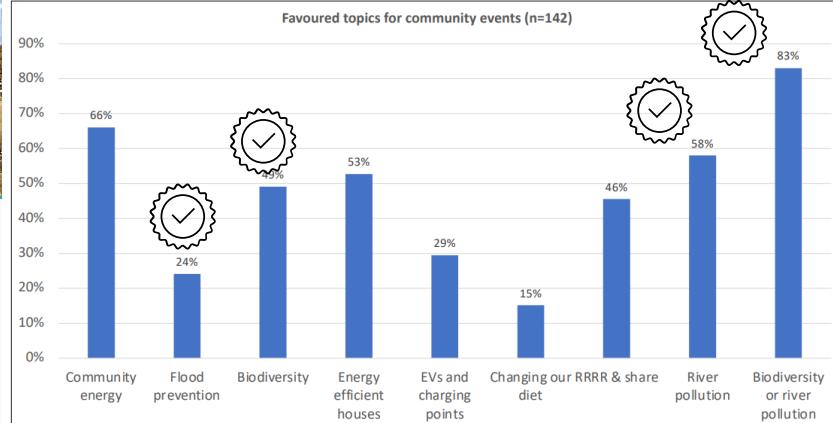


Welcome to Action for the River Kennet



Local Community Climate Change

Favoured topics for community events (n=142)



Partnership between organisations and people

With funding from Thames Water,
Department for Education and
Wiltshire Wildlife Trust.

A catchment based approach

Find your Rivers Trust and/or Catchment Partnership and see how your projects fits into the wider landscape.

