



EDUCATION SECTOR

Water Resilience Guide



For busy school leaders water resilience is about Maximising Budgets & Minimising Risk

Welcome to your guide on Water Resilience for the Education sector. Schools, colleges, and universities face constant pressure to manage costs, provide safe and healthy environments, and demonstrate environmental responsibility. Reliable and responsible water management isn't just about sustainability, it's about safeguarding budgets, protecting students and staff, and ensuring continuity of learning. This guide will help you understand your water footprint, identify risks, and implement practical strategies to make your institution more resilient in the face of rising water costs and potential disruptions.





Why Water Matters to Institution, Right Now:

- **Hidden Costs:** Leaks and inefficiencies inflate bills, draining already tight budgets.
- **Duty of Care:** Students and staff depend on safe, reliable access to water. Failures can lead to closures.
- **Reputation Risk:** Parents, governors, and regulators expect visible sustainability action.
- **Real Savings:** A medium-sized secondary school can spend £10,000–£30,000 annually on water. A 10–20% saving could free up £1,000–£6,000+ per year for other priorities.

Your Water Footprint: Where It Goes & Why It Matters

- **Toilets & Washrooms (40–50%):** High daily use, especially in large schools.
- **Catering & Kitchens (20–30%):** Dishwashing, prep, and cooking in canteens.
- **Sports & Leisure (10–20%):** Pools, showers, changing rooms.
- **Cleaning & Maintenance (10–15%):** Floors, surfaces, equipment.
- **Heating & Cooling (5–10%):** Boilers, HVAC, cooling towers.
- **Grounds & Landscaping (5–10%):** Pitches, gardens, and external areas.

Pinpointing high-use areas allows you to prioritise actions where impact is greatest.

Quick Wins: Immediate Savings, Minimal Effort

- **Dual-Flush Toilets:** Save 3–5 litres per flush.
- **Low-Flow Taps & Aerators:** Reduce flow by up to 50%.
- **Timed Taps or Push Buttons:** Prevent taps being left running.
- **Smart Cleaning Practices:** Use mops and microfibre cloths rather than hoses.
- **Kitchen Efficiency:** Ensure dishwashers are full before running.
- **Student Engagement:** Campaigns to encourage water-wise behaviour.

Low-cost measures deliver fast returns and reduce waste, freeing funds for education priorities.

Smart Investments: Future-Proofing for Long-Term Value

- **AMR & Smart Metering:** Monitor in real-time, identify leaks quickly.
- **Rainwater Harvesting:** Supply toilet flushing and irrigation.
- **Greywater Recycling:** Reuse water from sinks/showers for flushing.
- **Efficient Catering Equipment:** Dishwashers and appliances designed for lower water use.
- **Efficient Showers & Pool Systems:** Optimise flow, filtration, and backwash cycles.

These measures require capital investment but deliver long-term resilience and substantial savings.

Your Hidden Drain

- **Silent Cost:** A leaking toilet can waste over 20,000 litres per year. In a large school estate, this multiplies rapidly.
- **Daily Walkthroughs:** Caretakers should check taps, toilets, and showers.
- **Night-Time Monitoring:** If meters tick overnight, you may have a leak.
- **Prompt Repairs:** Small leaks become expensive problems quickly.

Proactive monitoring protects budgets and prevents disruption to learning.

Engage Staff & Students: Build a Water-Wise Culture

- **Staff Training:** Teachers and caretakers trained to spot and report issues.
- **Student Campaigns:** Clubs, posters, or competitions encourage awareness.
- **Curriculum Link:** Use sustainability projects to integrate water-saving into learning.
- **Recognition:** Celebrate classes or teams who contribute to water savings.

Culture change turns water saving into a community effort, reinforcing values of stewardship and responsibility.

Be Prepared: Manage Water Supply Risk

- **Know Your Risks:** Burst pipes, supply interruptions, or local restrictions.
- **Emergency Plan:** Ensure access to bottled water and temporary facilities if needed.
- **Backup Storage:** Consider water storage for critical services (canteens, hygiene).
- **Utility Engagement:** Understand resilience plans with your water provider.

Preparedness protects student safety and avoids costly closures.

Sustainable Drainage Systems (SUDS): Smarter Surface Water Management

Traditional drainage systems remove water from site as quickly as possible, often leading to flooding risks downstream, higher sewerage charges, and missed opportunities for reuse. Sustainable Drainage Systems (SUDS) provide a more resilient approach for schools by managing rainfall where it lands.

Key Benefits for Schools:

- **Flood Risk Reduction:** Prevents playgrounds, car parks, and sports fields from flooding after heavy rain.
- **Cost Savings:** Reduces sewerage charges by managing runoff on-site. In some cases, SUDS can be cheaper to build and maintain than traditional drainage.
- **Educational Value:** Features such as swales, ponds, and rain gardens can be used as outdoor classrooms, linking to science, geography, and sustainability education.
- **Biodiversity & Amenity:** Creates habitats for wildlife, enhancing green space and student wellbeing.

Practical SUDS Techniques for Schools:

- **Permeable Paving:** Allows rainwater to soak through car parks and playgrounds rather than running off.
- **Rain Gardens & Swales:** Shallow planted areas that capture and filter rainwater.
- **Green Roofs:** Reduce runoff while improving insulation.
- **Detention Basins or Ponds:** Store water temporarily and release it slowly.
- **Link with Rainwater Harvesting:** Collected rainwater can supply toilets, cleaning, or irrigation, cutting mains demand.

SUDS are not just an engineering solution, they are a teaching resource, a cost-saving opportunity, and a way to demonstrate visible sustainability leadership within the school community



Next Steps: Your Action Plan

- **Baseline:** Review water bills and establish usage patterns.
- **Assessment:** Walk the site to identify quick wins and investment opportunities.
- **Prioritise:** Begin with the easiest, highest-impact actions.
- **Communicate:** Share progress with staff, students, and governors.
- **Seek Expert Help:** We provide audits, tailored solutions, and implementation support.

Step-by-step improvements build momentum and measurable results, safeguarding your school's future.

Need Support? Let's Talk

Want support optimising your school's water resilience?

We help schools cut consumption, reduce waste, improve control, and save money, without disruption.

Email :
Sustainability@pe.solutions