SuDS in Schools
Submitted by Southern Water

Awards category
Regeneration and retrofit – public buildings

Lead or collaborating organisation(s)	**Southern Water, Department for Education and Sudsplanter Ltd**
Location of SuDS	Multiple locations across the south, we are happy to provide a list if this is of interest.

1. SuDS overview

SuDS components used	- Water butts - Tree pits - Raingardens - Sudsplanter® rain garden planters - Detention basins - Swales
Size of the scheme and its local context	93 schools across the south
Approximate age of scheme (years)	1.5 years
Benefits of the scheme	- Manages flood risk. - Reduces storm overflows and pollution. - Prevents schools needing to close due to flooding, reducing lost education days, disruption and avoidable cost. - Increases biodiversity and encourages pollinators. - Provides carbon sink benefits. - Provides long term educational benefits for students to learn about SuDS, water responsibility, biodiversity, plant life cycles and self-sufficiency. - Easily and widely scalable, not just within schools but other public and private buildings.
Briefly describe the scheme	SuDS in Schools is an eco-friendly and scalable programme undertaken by Southern Water and the Department for Education, championing nature-based solutions to slow the flow of water into the sewer system. Rainwater runoff from large roofs and impermeable ground is a huge contributor to localised flooding and storm overflows, and in recent months there has been more rainfall than ever before. Schools are a big contributor to the run-off, as they often have multiple large roofs and various impermeable surfaces like playgrounds and pathways. This makes them particularly susceptible to closures due to flooding, causing disruption for teachers and parents, but more importantly a loss of education. To help avoid this, we launched our £3 million match-funded SuDS in Schools initiative with the DfE. We set out to manage as much surface water as possible by installing sustainable drainage systems (SuDS) in almost 100 schools in just 18 months.

2. SuDS details

No.	Question	Answer
1	What difference has this scheme made to the local community or area?	The project managed over 8.2ha (10 football pitches) of impermeable land, attenuating 170,000+ litres of water each time it rains. This reduction was achieved sustainably and provides a long-term solution to a problem that was causing school closures and affecting the community. As well as the reduced pollution from mitigating storm overflows and flooding, the SuDS improve water quality, enhance biodiversity, provide carbon sink benefits, and encourage pollinators. Teachers are benefitting from using the outdoor learning environment to promote learning beyond the classroom. Schools feel empowered knowing that they're taking positive steps forward to contribute to a more sustainable society.
2	What is exceptional about this scheme beyond a standard approach?	Over 40% of surface water is attributed to roof run-off. We chose schools for our SuDS installs as they have large roofs, playgrounds and other impermeable areas contributing to surface water. SuDS in Schools is an innovative endeavour the scale of which has not been seen before, enabling the creation of a blueprint for quick SuDS installation over hundreds of schools. Over 200,000 students have already benefitted from improved access to green spaces. By adopting a dual approach, addressing the root cause alongside educating young minds, SuDS in Schools is paving the way for a more resilient future for water.

3	How much work went into getting this scheme realised?	After extensive surveying and planning, we determined the best SuDS solutions for each individual school. We offered schools as many SuDS as needed to maximise results. Some used smaller interventions like SuDSPlanter® raingarden planters and water butts, some used larger systems such as swales and raingardens. As well as working with the DfE, we hired local contractors Rescue 2 and Groundworks to install the planters. Once installed, we involved the students with the planting and maintenance which created an excellent learning opportunity. We complemented this with interactive assemblies about the new SuDS systems and their benefits.
4	Is this scheme part of a masterplan or integrated into other initiatives?	The SuDS project is part of the DfE'S Schools Water Strategy, an invest to save strategy, established by the DfE's risk protection arrangement. It demonstrates a catchment-wide approach with endless scalability and undeniable results, a real-life example of the nature-based direction the water industry must move toward to protect and preserve our environment. We've worked with over 90 schools, with 30 planned. To inspire positive change, we're sharing our learning so the industry can use our trials and results to inform their own SuDS initiatives. By working in partnership, we can make the biggest difference to our communities.

5	What value does this scheme provide to the local area and beyond?	- Building strong local partnerships and creating new employment opportunities. - Mitigating storm overflows and flooding and the pollution they cause. - Permanently reducing school closures and the disruption caused to parents and teachers. - Raising awareness of SuDS and their benefits to improve the overall environment. - Improving local biodiversity and providing wider environmental benefits to the school. - Supporting the curriculum with real-life hands-on experiences for the students. - Educating the next generation on sustainability and water responsibility.
6	What challenges/problems needed to be addressed to realise this scheme?	**Funding:** With such a huge project came an equally large cost, which we could not fund alone. We partnered with the Department for Education to jointly fund this scheme, allowing up to make a much bigger difference. **Individual approach:** Surface water can come from many sources, so to ensure the interventions we installed were going to resolve the issue, we undertook extensive surveying, testing and planning in order to determine the best combination of SuDS for each school's individual case.
7	How does the scheme address related issues such as water scarcity, nutrient neutrality, or biodiversity net gain?	By educating young minds on the importance of water responsibility, ecology, and biodiversity, we are helping the new generation to understand the power they hold to make change and improve our environment. We aim to inspire, support, and champion those that wish to make a difference and create change, and this, like many other things, starts in schools. As well as creating the next generation of eco warriors, the interventions themselves provide green spaces, promote biodiversity, provide food and homes for local wildlife, and provide carbon offsetting.

8	Is learning from the scheme continually captured and communicated? Please give examples.	We're undertaking extensive monitoring of the SuDS installs and collating these results to inform future projects. We believe green solutions are a critical part of overcoming our reliance on storm overflows. We're making our data available to the wider industry to enable faster and wider implementation of nature-based solutions in communities across the UK. As well as our monitoring, we're in regular contact with the schools and students to understand how they're using the SuDS and what could be improved upon. Incorporating this feedback alongside our findings enables adjustments based on real-world experiences, fostering a culture of continuous learning.
9	What approaches/measures are taken to ensure the scheme is properly managed and maintained?	Once we install the SuDS, maintenance plans are provided to the school, and they become the school's property to maintain and manage. We encourage the schools and the students to take ownership of their SuDS and enjoy the associated benefits and offer ongoing support and advice. A study by University of Exeter Medical School looked at green spaces for mental health and found that gardening has a positive effect on mental health, reducing symptoms of stress, depression, and anxiety. We've seen great success with the planting and maintenance being included within lesson plans, particularly in home education and outdoor learning.

10	Have you collected any feedback on your scheme? What do people say about it? Can you provide any quotes?	"As part of our ongoing commitment to reducing waste and supporting environmental strategies, we are thrilled to have support from Southern Water, enabling us to add these new SuDS to our school." **– Frazer Westmorland, Headteacher of Mundella Primary School** "We're delighted with the raingardens and our students are already benefiting from the changes to the school site. This is a wonderful opportunity for all year groups to cultivate a greater understanding of environmental care and apply this knowledge to shape a more sustainable future." **– Martin Jones, Headteacher of Dane Court Grammar School**

3. Supporting materials

Image (low resolution)	Caption	Image credit
	A large raingarden installed at Dane Court school to manage surface water and mitigate flooding	Southern Water

	A fully planted rain planter managing roof run-off. This turns excess water into a beautiful school feature that also boosts biodiversity and supports curriculum.	Southern Water
	We deliver assemblies to students to help them understand their SuDS installs and what they do, and educate on environmental responsibility.	Southern Water
	Students at Mundella Primary School loved getting involved with the planting, and will help with the ongoing maintenance of the planter as part of lesson plans.	Southern Water

 	Before and after photos of a large SuDS install at Nettlestone Primary School on the Isle of Wight. This install consisted of a swale, tree pits and rain gardens combined into a fun and interactive area for students to enjoy. The SuDS will manage surface water that was causing flooding and school closures.	Southern Water
	Students at Ryde Academy doing an excellent job of planting out their new rain planter with the help of Southern Water engineers	Southern Water

	A swale learning board installed at Nettlestone. The board contains information about the swale, how it works, what wildlife it can attract, as well as a fun insect spotting game for students. The accompanying materials and assemblies we provide help students and teachers understand their SuDS installs, as well as generating excitement and engagement from students and parents.	Southern Water