

SuDS (Sustainable Drainage Systems) in Schools

To: Environment and Green Investment Committee

Meeting Date: 3 March 2022

From: Steve Cox, Executive Director - Place and Economy

Electoral division(s): Cottenham & Willingham; Papworth & Swavesey
St Ives South & Needingworth; Sawtry & Stilton

Key decision: No

Forward Plan ref: n/a

Outcome: To agree to provide funding through the Environment Fund of £75,000 for a Sustainable Drainage Systems (SuDS) in Schools project covering five schools across Cambridgeshire.

Recommendation: Members are asked to:

- a) Note the background and opportunities regarding the implementation of SuDS in schools
- b) Approve expenditure of £75,000 from the Environment Fund to unlock partnership funding and implement SuDS schemes in five schools across Cambridgeshire

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Member contacts:

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1. Background

- 1.1 Significant areas of Cambridgeshire are at risk from surface water flooding and as a Council we have a responsibility under the Flood and Water Management Act 2010 for managing flooding from this source. Within these risk areas there are a number of schools, some of which already experience regular flooding which is not only costly in terms of repair work, drying out and insurance claims, it is also disruptive to the education of pupils.
- 1.2 The Council's Climate Change and Environment Strategy and Action Plan (published 2022) place an action on the Council to work with schools to enhance and manage their sites for natural capital such as Sustainable Drainage Systems (SuDS) and biodiversity enhancement. Similarly, within the draft Local Flood Risk Management Strategy (2021-2027) there is an action to support schools in implementing SuDS. An opportunity has arisen via the Department for Education who are interested in working with delivery partners such as the County Council to contribute towards SuDS in schools to reduce surface water flooding and enhance biodiversity.
- 1.3 The Council has a £16million Environment Fund in its budget plan to support delivery of its commitments and near-term targets set out in the Climate Change and Environment Strategy (such as that outlined in 1.2 above).
- 1.4 More generally, the Council has also set out 15 priority areas relating to the environment including: 'Adaptation – innovation to enable us to better cope with unpredictable extreme weather events and work with partners to develop a network of green space and water assets which can deliver quality of life and environmental benefits'
- 1.5 The intended outcome of this report is therefore to agree expenditure from the Environment Fund to enable implementation of SuDS schemes at 5 schools across Cambridgeshire.

2. Main Issues

- 2.1 For many years, rainwater has been treated as waste and it has been channelled away into conventional underground drainage systems. In some areas this then spills into the sewage system which can release foul water into streets, buildings and rivers. To help reduce this, SuDS can be used to manage rainwater at the point it hits the ground or roof. SuDS slow the water down whilst cleaning it at the same time through features such as swales, rain gardens and ponds.
- 2.2 The Department for Education (DfE) has made funding available to contribute towards SuDS projects in schools with the aim of reducing surface water flood risk, enhancing biodiversity and providing educational resource. Their contribution is reliant on partnership funding and is limited to 50% of the scheme cost up to a maximum amount of £30,000 per school depending on a variety of factors including their own internal assessment of risk. Anglian Water also run a partnership funding programme and have expressed interest in contributing towards SuDS in Schools schemes in Cambridgeshire, with the amount dependent on the overall benefit to the public sewer network (in the majority of cases this will be limited to match funding any DfE contribution). In addition to a financial contribution, Anglian Water have offered to host interactive sessions for the schools around water and flooding linked to the curriculum.

- 2.3 In partnership with the Council's Education Capital team we have identified five schools in Cambridgeshire that are at risk of surface water flooding and that experience some degree of flooding on a regular basis. These schools could benefit from a SuDS scheme to reduce risk on their own site as well as in the surrounding area. These schools are Willingham Primary School, Swavesey Primary School, Sawtry Infant School, Westfield Junior School (St Ives) and Eastfield Infant School (St Ives). These schools were chosen through a combination of the following: consultation with the Education Team around existing known flooding issues; the flood risk classification of the schools on national surface water mapping, internal analysis of surface water risk ranked by severity; and location of the schools relative to the most recent flooding in December 2020.
- 2.4 The flooding of schools is costly and disruptive. If a classroom is damaged by flooding it can cost in the region of £10,000-£15,000 to re-equip with chairs, tables, carpets, flooring, and storage. Indeed this was realised following flooding of Willingham Primary School which resulted in direct costs in the region of £13,500 plus indirect costs of disruption and emergency response. In some cases flooding may mean that a classroom is not able to be used which requires the hiring of temporary classroom accommodation. Typically, per single classroom it would cost between £53,000 and £86,000 per 6 months to hire a temporary building including ancillary costs such as delivery, installation, dismantling and removal. If other rooms such as the school hall or kitchen were flooded the cost would be much greater as specialist buildings would need to be hired. As well as the cost, there would be significant disruption to the serving of lunches, exam periods and indoor sport. In the worst case scenario a school may need to close for a period of time to undertake repair works.
- 2.5 The installation of SuDS schemes will help reduce the risk of flooding, presenting a cost saving to both the County Council and the individual schools alongside a reduction in the risk of disruption.
- 2.6 It is initially estimated that the SuDS schemes would cost a total of £375,000 across the five schools (including consultation, design, and construction). A contribution of £75,000 by the County Council would potentially unlock £300,000 of funding by the Department for Education and Anglian Water to cover the total cost of the schemes (see Figure 1 below).

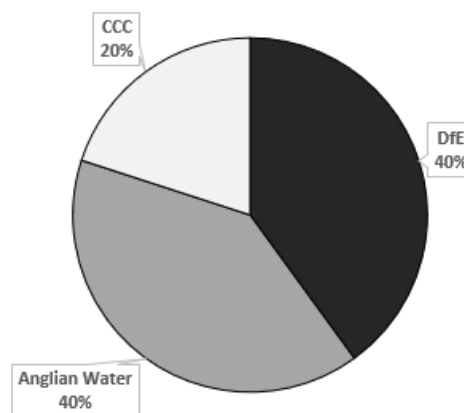


Figure 1: Pie Chart Showing Contributions to SuDS in Schools Schemes

- 2.7 The funding offered by the DfE is time limited and unlikely to be available again for several years. It provides an exciting opportunity to work in schools to reduce flood risk, improve water quality and enhance biodiversity whilst contributing towards the achievement of two Council targets.
- 2.8 By installing SuDS schemes at these schools there are additional benefits other than just reduced flood risk. They help us adapt and respond to climate change and water pollution whilst offering an opportunity to connect children and adults to nature and water. They provide an attractive, stimulating, and sensory learning environment to raise awareness of environmental issues and the water cycle. Additionally SuDS deliver attractive green spaces for biodiversity by creating new habitats or improving existing ones. They can provide shelter, food, and breeding opportunities for a variety of wildlife including amphibians, invertebrates, birds and mammals.
- 2.9 Well designed SuDS are often cheaper than traditional approaches to drainage and SuDS for schools are easy to maintain. They typically require little more than standard landscaping maintenance which in most instances can be undertaken by pupils and community members. Initial engagement with the schools to date suggests they would be happy to incorporate the maintenance of SuDS into their existing landscaping maintenance programmes, provided there is not a significant increase in required work or skills.
- 2.10 It is recognised that obtaining engagement and buy in from those at the schools is of great importance and this includes pupils, parents, staff and governors. Unfortunately the timing of the application window for DfE funding (14 December 2021 to 14 January 2022) coincided with school Christmas holidays meaning that only limited engagement has been possible, however each of the schools contacted have expressed they are keen to be involved. We expect to hear the outcome of our application to the DfE by 31 March 2022.
- 2.11 The schemes would commence in financial year 2022/23.
- 2.12 We have already discussed with Anglian Water the possibility of expanding the SuDS in Schools programme to other areas in the absence of future DfE funding to ensure greater coverage of the County. They have provided in-principle agreement to this, subject to further detail and achievable benefit to the public sewer network. The Flood and Water team will continue to liaise with Anglian Water to identify potential future schemes.

3. Alignment with corporate priorities

3.1 Communities at the heart of everything we do

The following bullet points set out details of implications identified by officers:

- Using SuDS to manage rainfall delivers exciting opportunities and a range of benefits for schools and their local communities including the provision of learning and play space.
- Pupils, parents and the wider community can be involved in the design, planting and maintenance of SuDS features. Child led eco-councils can provide guided tours of SuDS features for other students, parents and guests. A case study of similar work

with Anglian Water and a school in Newmarket can be found here:

<https://www.youtube.com/watch?v=ggSu7oCBOzI>

3.2 A good quality of life for everyone

The following bullet points set out details of implications identified by officers:

- SuDS offer an opportunity to connect children and adults to nature and water which improves wellbeing.
- SuDS are attractive features that can provide amenity space and contribute to good health
- Reducing the flood risk for the school will reduce the impact on the wider community to make them more resilient during times of flood

3.3 Helping our children learn, develop and live life to the full

The following bullet points set out details of implications identified by officers:

- Features like ponds and raingardens enable lessons to be held locally in outdoor classrooms and SuDS more widely can be linked to science by including nature gardens and food growing as well as features like water wheels and bug hotels
- SuDS provide an attractive, stimulating and sensory learning environment and add interest to landscapes that can include features like mini water wheels and water sculptures that support play and child led learning.

3.4 Cambridgeshire: a well-connected, safe, clean, green environment

The following bullet points set out details of implications identified by officers:

- SuDS can clean water flows into receiving watercourses, reducing the risk of pollution incidents associated with significant rainfall events
- Reducing the burden on sewers can reduce the risk of foul water flooding into properties and the natural environment.
- SuDS can soften urban landscapes and provide aesthetically pleasing communal green space

3.5 Protecting and caring for those who need us

The following bullet points set out details of implications identified by officers:

- A report into schools and climate change published by the London Assembly in August 2020 states '*children are particularly vulnerable to the impacts of climate change because of their limited capacity to respond to severe weather events, due to lack of experience of changing conditions, lack of knowledge to help them adjust their behaviours and – if of early years or school age – their dependency on teachers and other adults for guidance*'. Implementing SuDS schemes alongside a tailored education programme will help increase the resilience of children to adapt to climate change

4. Significant Implications

4.1 Resource Implications

There are no significant implications within this category.

4.2 Procurement/Contractual/Council Contract Procedure Rules Implications

Procurement for the design, consultation and construction of the SuDS schemes will be undertaken in line with the Council's procurement policy.

4.3 Statutory, Legal and Risk Implications

Key risks include COVID-19 delays to material supplies and contractor staff shortages.

4.4 Equality and Diversity Implications

There are no significant implications within this category. Implementing SuDS in schools is an action within the Climate Change and Environment Strategy and the draft Local Flood Risk Management Strategy for which there have been comprehensive Equality Impact Assessments undertaken

4.5 Engagement and Communications Implications

Each school has already been contacted to gauge interest and advise of our intention to submit a bid to the Department for Education. If successful with the bids we will work with the Communications team to ensure appropriate internal and external comms are shared. The schools (including pupils, governors etc.) will be consulted throughout the process to ensure any scheme that is designed is appropriate and maintainable into the future

4.6 Localism and Local Member Involvement

This project is an action in the Climate Change and Environment Strategy, developed with a cross-party member working group and the Local Flood Risk Management Strategy which has been subject to member involvement and public consultation.

4.7 Public Health Implications

The following bullet points set out details of significant implications identified by officers:

- The works will need to be undertaken whilst minimising disruption and still adhering to social distancing requirements that may still be in place at the time, due to Covid-19.
- The schemes will need to ensure that safety is considered as part of the design process for SuDS.

Have the resource implications been cleared by Finance? Yes

Name of Financial Officer: Sarah Heywood

Have the procurement/contractual/ Council Contract Procedure Rules implications been cleared by the LGSS Head of Procurement? Yes

Name of Officer: Clare Ellis

Has the impact on statutory, legal and risk implications been cleared by the Council's Monitoring Officer or LGSS Law? Yes

Name of Legal Officer: Fiona McMillan

Have the equality and diversity implications been cleared by your Service Contact?

Yes Name of Officer: Elsa Evans

Have any engagement and communication implications been cleared by Communications?

Yes Name of Officer: Amanda Rose

Have any localism and Local Member involvement issues been cleared by your Service Contact? Yes Name of Officer: Emma Fitch

Have any Public Health implications been cleared by Public Health?

Yes or No Name of Officer:

If a Key decision, have any Environment and Climate Change implications been cleared by the Climate Change Officer? Not key decision Yes or No Name of Officer: N/A

5. Source documents

5.1 Source documents

- Reimagining rainwater in Schools – (Greater London Authority) produced by Ciria, Robert Bray Associates and Business in the Community

5.2 Location

https://www.london.gov.uk/sites/default/files/reimagining_rainwater_in_schools_v1_.pdf