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The Value Of High-Quality SuDS

ABOUT THIS REPORT

Acknowledgements

We thank all who supported and contributed to this report. We would like to thank Bruce Horton, Richard Ashley, Kevin Barton, and the Technical Steering Group, whose contributions were invaluable in shaping the analysis and recommendations of this report. The Technical Steering Group included representatives from these organisations:

Anglian Water
Association of SuDS Authorities
CIWEM
Environment Agency
Environment Protection Group
Environmental Policy Consulting
Future Homes Hub
Illman Young Landscape Design
Land, Planning and Development Federation (LPDF)
Richborough
Robert Bray Associates
Thakeham
United Utilities
Urban & Civic
Welsh Government
WSP

Planning For Water: The Value Of High-Quality SuDS was written by **Bertie Wnek**, Director of Housing and Infrastructure, **Ben Savours**, Senior Economist, **Cian Ward**, Policy Manager of Housing and Infrastructure and **Sunita Pfitzner**, Research Manager at Public First. This research project was conducted by Public First, overseen by a technical steering group and commissioned by the Ofwat Innovation project, Enabling Water Smart Communities (EWSC). We would also like to thank Paul Shaffer, Catherine Moncreiff and CIWEM for their committed support throughout.

CONTENTS

Executive Summary

Managing water sustainably in urban areas is becoming an urgent national priority. Ageing infrastructure, fragmented governance, and growing pressures from climate change and housing expansion all demand new approaches to surface water management. Sustainable Drainage Systems (SuDS) — which mimic natural processes to slow, store, filter and manage rainfall where it falls — offer a proven, nature-based solution with wide-ranging environmental, social, and economic benefits. Yet their full value and delivery challenges are not well understood across stakeholders.

This report, commissioned by **Enabling Water Smart Communities (EWSC)**, assesses the case for **high-quality SuDS (HQS)** in England. The evidence in this report comes out of four separate strands of research:

1. **Developer interviews**: We held ten in-depth discussions with large, medium, and small developers to understand their attitudes towards SuDS from a commercial, technical, and policy perspective.
2. **Economic modelling**: We conducted an economic modelling exercise to quantify the additional economic, social, and environmental benefits of delivering HQS in all new developments.
3. **Public opinion research:** We ran a nationally representative poll of 2,000 adults exploring their awareness, attitudes, and willingness to pay for SuDS features.
4. **Immersive fieldwork**: We conducted over 70 interviews with residents in eight Cambridgeshire developments which incorporated SuDS to explore resident's experiences and attitudes towards their features.

Key Findings

- **Developers recognise SuDS' placemaking and biodiversity benefits** for the environment and residents more widely. They also cite inconsistent regulation, land-take pressures, and unclear maintenance responsibilities as barriers to delivery. Smaller developers are most concerned by space constraints, though all developers call for consistent adoption standards.
- **The public values SuDS outcomes but have limited awareness of their technical functions.** Awareness of SuDS as a concept is low, yet the public strongly values the green and blue spaces they provide, believing them to improve, wellbeing, aesthetics, and amenity. Whether or not features are well-maintained has a large impact on people's perceptions of SuDS.
- **Younger and future homebuyers show the greatest demand** for sustainable, water-smart developments and SuDS, with 63% suggesting they'd pay more to live in a SuDS development, suggesting market appetite will grow over time.
- On average, residents would pay an average of **£281 a year more** in rent or service charge for a home with SuDS and **62% of people** would 'pay more to live somewhere that would be at **significantly lower risk of flooding'.**

- **The economic and welfare benefits are significant.** Were HQS to be delivered for all of the 1.3 million homes projected by the Office for Budget Responsibility (OBR) to be built up to 2029/30, there would be:
    - **£36 million** of annual water related benefits and environmental value;
    - **£219 million per year** of welfare value to residents of new builds;
    - A **£3.1 billion property value premium** for the 1.3 million homes;
    - An average **£4,001 per-home premium** in market value associated with HQS SuDS benefits.

Policy Implications

The evidence outlined above supports legislative action, such as Schedule 3 of the Flood and Water Management Act 2010, to make HQS a standard in new developments. Other priorities suggested by the evidence include, for policymakers:

1. **Greater clarity, coherence and consistency** across local planning, lead local flood authorities, highway authorities, and water companies.
2. **More clearly defined maintenance and adoption responsibilities** to ensure long-term performance and value of SuDS features.
3. **Sustainable funding and capacity building for adoption bodies** to overcome reluctance and liability fears.

And for developers:

4. **The promotion of SuDS' placemaking and amenity value**, not just their drainage and flood risk management function.
5. **The early integration of SuDS into design and land acquisition**, reducing viability concerns, maximising benefits and subsequent value.

HQS are not simply drainage infrastructure — they are essential to climate resilience, community wellbeing, and sustainable growth. Mainstreaming SuDS through coherent national standards and secure stewardship would unlock significant social and economic value while supporting the delivery of thousands of new homes across England.

Introduction

Managing water in urban areas is notoriously difficult. The impacts of poor water management — whether water pollution or natural phenomena such as flooding or drought — have severe and immediate consequences for communities.

The current system for water management in Britain has many problems, many of which are exacerbated by the ageing infrastructure networks in our towns and cities. It is fragmented, poorly resourced and fails to prevent pollution. It also fails to unlock potential efficiencies through delivering multi-beneficial solutions to surface water problems by coordinating different functions and funding pots. Likewise, 'flooding and drought are largely addressed in isolation; neither silo integrating with water quality, wider environmental impacts and opportunities to improve the quality of spaces and places effectively.'[1] There is also a lack of integration of systems much broader than water alone.

With the impacts of climate change becoming more pressing, the need to build greater robustness to changing weather conditions and extreme events is rising sharply up the political agenda. The Government has also committed to build 1.5 million new homes over the course of the current parliament which will substantially increase the amount of developments in many areas across the country. Taken together, these pressures point to the need to improve urban water management over the coming decade.

Sustainable Drainage Systems or SuDS is a term used to denote drainage features within developments aimed at capturing rainfall where it falls and managing runoff. SuDS replicate nature by slowing down the flow of runoff, enabling water to soak into the ground, or store it on the surface with features designed to manage flooding, poor water quality and water scarcity, as well as provide other benefits such as improving biodiversity, amenity and wellbeing. SuDS are considered more sustainable for this reason, and can support biodiversity within and around new developments. However, whilst these benefits are multifaceted compared to standard drainage systems, it is unclear how quantifiable these benefits are to nature, people and the economy, and how they are perceived by residents, developers and the public alike. It is similarly unclear how the cost of delivering SuDS measures up against these benefits. This research study, conducted on behalf of Enabling Water Smart Communities (EWSC), aims to quantify these benefits, and understand the public's views of these systems. This project also complements another EWSC project developing a cost benefit analysis for high-quality SuDS (HQS). It also draws on findings from a previous EWSC study conducted by Public First on public attitudes towards water reuse in domestic settings.

[1] CIWEM: A Freshwater Future, 2023

The policy framework for SuDS

In July 2025, The Independent Water Commission's (IWC) review[2] called for decisive action and legislative changes on drainage and wastewater, aiming to reduce pollutants and rainwater entering the sewerage system. Above all, it called for mandatory requirements for SuDS in new developments, as well as consistent standards, in England. This is the latest in a long line of references to SuDS in Government policy papers. Before the IWC report, in January 2023, the Government published its review[3] into Schedule 3 of the Flood and Water Management Act of 2010: legislation which would make SuDS mandatory, clarifying who is responsible for approval and adoption. The review recommended its implementation, but has yet to be acted upon.

Given the uncertainty around legislative intervention, the pressure to build climate resilience in the wake of more extreme weather events, and the Government's target to build 1.5 million new homes, there is clearly a need for research that reveals and quantifies the true benefits of SuDS to society. As well as this, understanding how developers see SuDS, how it impacts their design, consultation and development processes, use and maintenance — from the technical, legislative and policy perspectives — is crucial if policymakers are to accurately weigh up the benefits and disbenefits of Schedule 3 implementation. This report comes in the context of the recommendation in Defra's review of SuDS for the following: 'An analysis of the costs and benefits in full to inform the best decision on funding including the running costs of the SAB and the SuDS operation and maintenance costs.' [4]

Our approach

With these challenges in mind, this piece of research sought to quantify the benefits of SuDS to people, the economy, and the environment, and to understand the attitudes of the public (including homebuyers), residents, and developers towards SuDS. This will help policymakers and housebuilders to understand SuDS in the round, when considering the implementation of SuDS. It will also be useful to developers seeking to understand how the presence of SuDS changes the monetary and social value of their developments, and the housing within them. This research will strengthen existing evidence, such as CiriaBest and other resources[5], and information on the benefits of SuDS in terms of performance, cost of delivery, public acceptance, and environmental benefits. Our research was delivered in four phases:

1. **Immersive Research**: Public First researchers spent two days conducting in-person immersive fieldwork in the Cambridgeshire area, visiting eight

[2] Independent Water Commission, Final Report, July 2025
[3] Defra, Sustainable Drainage Systems Review, January 2023
[4] *Ibid*
[5] Evidence, Susdrain

new-build sites with perceived HQS present. We interviewed 70 local residents living in or visiting developments with HQS[6]. We selected Cambridgeshire for its concentration of large-scale residential developments which incorporate HQS features alongside proactive local authority engagement on sustainable water management.

2. **Developer Interviews**: We conducted ten in-depth interviews with a range of housebuilders in the UK. We spoke to senior leaders, planners, and technical directors from a range of housing developers of various sizes to understand how SuDS are viewed from a commercial and planning perspective; how SuDS planning requirements impacts the design and construction processes; how developers understand SuDS to change the experiences of their residents; and their perceptions of the impacts of SuDS on the environment.
3. **Public Polling**: We conducted a nationally representative survey of 2,000 adults in England to test awareness of and attitudes towards SuDS, climate change, their local area and infrastructure, and home-buying decision-making. Our poll tested attitudes towards the outcomes of SuDS in depth, for example increased biodiversity, visual and aesthetic benefits to the local area, water and air quality, flood management and others. We used our quantitative data to arrive at a 'willingness to pay' model, aimed at understanding the value of HQS to prospective homebuyers.
4. **Economic Analysis**: Our modelling exercise was divided into two strands. The first looked at the indirect economic benefits of SuDS, through an assessment of the value of the many social and environmental benefits inherent to HQS; these include factors such as better water quality, increased biodiversity, air quality and so on. The second strand of the economic analysis was based on data derived from our quantitative polling of 2,000 UK adults. Based on specifically designed questions, we assessed the value of these outcomes to homebuyers and derived a Net Present Value — the overall increase in the value of the housing stock — calculated from the average willingness to pay monthly for those benefits.

The need to improve the quality of the environment and adapt to climate change becomes more pressing each year. Our systems of water management in the UK both manage water quality, as well as water quantity, i.e. too much and too little water, increasing the need for reform in the short-term — whether through Schedule 3 or with other arrangements and legislation to enable and mandate SuDS. The Government's ambition for housing growth only makes its decision on what policies to pursue in this area more urgent. Ultimately, this report aims to provide evidence to support a clear-eyed assessment of the value of a long-earmarked piece of legislation on SuDS. As with many such decisions, delaying intervention only serves to add to confusion and uncertainty.

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[6] High-Quality SuDS are those that deliver as many of the four pillars of SuDS design as is possible: these pillars are as follows: managing flood risk; improving water availability and supply; improving water quality; enhancing visual character and amenity; improving biodiversity. These four pillars maximise benefit of SuDS for the public, the environment and society as a whole.

Setting these issues out in more detail, Chapter One explores developers' perspectives on both the key challenges they face in delivering HQS in England as well as their benefits. In Chapter Two, we evaluate the added economic benefits of SuDS beyond their core drainage function. Chapter Three outlines findings from our public opinion research, revealing both how the general public think about SuDS, drainage and sustainability, and how those living and working near SuDS developments view them. And lastly, in Chapter Four, we evaluate the public's willingness to pay for SuDS, finding that if SuDS were mandated for all new developments, the homes built over the next five years could be worth an additional £3.1 billion.

CHAPTER ONE:

Developer Perspectives: What Developers Need to Deliver High-Quality SuDS

Context and Relevance

In gathering evidence about the value of high-quality SuDS, Public First have sought to understand the perspectives of those responsible for designing and delivering them. Any changes to the regulatory and legislative framework for SuDS will have a direct impact on the developers who need to comply with them. This is why, as part of this research programme, Public First conducted ten interviews with representatives from developers of a range of sizes across the country to understand how the current framework works for them, and how any recent changes to the framework have affected their business models or approach to development. Interviews were conducted with planning directors, engineers and technical leads across a range of developers from England (major house-builders, master developers, consultants).

Method and Approach

These interviews were conducted using a structured discussion guide and each lasted approximately 30 minutes. The guide was designed to gain an understanding of any challenges associated with SuDS from the developer side as well as any of the perceived impacts of SuDS on consumers and residents from a developer perspective. Interviewees were also asked about the practical enablers and barriers to improving the delivery of SuDS, as well as any difficulties with coordination across multiple delivery partners. Ultimately, these interviews give a clear picture of what developers need to deliver HQS going forward.

Headline Findings

Developers have a broad range of views of the benefits and challenges of SuDS, often these views differ by size of developer and general business model. At the most basic level, most interviewees see SuDS as useful for biodiversity, surface water management and placemaking, but some cite viability constraints, such as a lack of developable space on sites and challenges with disjointed regulation.

Although they had anecdotal evidence that HQS improve the saleability of properties, developers did not believe they had a significant effect on price. Developers feel that SuDS features are rarely a priority for buyers and have little direct effect on price. Developers see other factors such as location and availability of amenities as far more significant factors in determining the price of a home than either the presence or quality of SuDS features. This broadly chimes with our public opinion research outlined in Chapter 3.

Developers believe public awareness of SuDS to be low. Developers did not feel buyers had an understanding of SuDS and their design features. Some felt the new regulations were an opportunity to make them more visible and positive while others worried that the features would be seen as unnecessary or hard to understand. Most developers cited making efforts to explain SuDS to prospective buyers in marketing materials.

Land take is a bigger challenge on smaller development sites than larger ones. On smaller plots the requirement for SuDS is believed to lead to take up of space where other homes could be sited. Several interviewees noted that the flexibility to design SuDS well decreases with smaller plots. On the other hand, Developers pointed out that larger sites generally have more space to do them well.

Developers felt that incoherent policy and regulation across government bodies and local authorities are one of the main challenges in delivery. They repeatedly highlighted the need for early engagement and alignment with local highways, and that local highway authority's design and adoption standards were often a barrier to delivering SuDS with landscape-led street design. Similarly, developers raised concerns about a lack of coherence across local authorities, water companies and other stakeholders.

There were mixed views over where long-term maintenance should sit. Almost all developers made the point that long-term maintenance of SuDS is crucial for their viability. Many spoke about the challenge of long-term maintenance and there was no single view as to who should be responsible. Some preferred giving maintenance responsibilities to local authorities, others to management companies. A few developers took on long-term stewardship themselves but often said this brought with it its own costs.

Overall, SuDS were seen as a necessary and potentially valuable part of development but only when there is enough space, flexibility, and regulatory coordination to make them work. Most developers wanted to do them well, but felt too often they were being asked to solve multiple objectives without a joined-up system to support that. They were also sceptical that HQS had a measurable positive effect on house prices.

Developers' perspective of SuDS: the benefits

SuDS are consistently viewed positively but awareness is low amongst buyers.

Developers said they are well-acquainted with SuDS, which have been embedded in planning policies since the early 2000s. Every developer we spoke to said SuDS was no longer optional for their sites and something they factor into their designs on day one. Most saw SuDS as a good way to manage surface water in developments, improve water quality and improve biodiversity on site, as well as provide placemaking benefits for the community. Developers consistently highlighted that visible, well-integrated SuDS improve the public realm and can support the delivery of biodiversity net gain (BNG) requirements for new developments in England to deliver a minimum 10% increase in biodiversity.

Some also remarked that well designed SuDS can help speed up the planning process and that SuDS had the benefit of helping them meet their Corporate Social Responsibility (CSR) requirements. Attitudes toward SuDS more often reflected the internal culture and sustainability ethos of each developer.

> *"It does add ecological benefits, biodiversity benefits, sales benefits, marketing benefits, and assistance through the planning process."* **- Large Housebuilder**

> *"We put SuDS into all of our developments. 100% of our completed sites last year had SuDS in them. So, we are very pro SuDS."* **- Large Housebuilder**

> *"I do think if they're designed well you can layer over the BNG aspects of it. So you can create a much nicer place holistically if it's well designed with good planting, good use of wet and dry, intermediate areas and BNG in those areas as well. That's probably the other big benefit if they are done properly, and it's not just viewed as an engineering solution."* **- Large Housebuilder**

Still, despite the benefits to placemaking and biodiversity, developers were sceptical that the presence of SuDS drives explicit price premiums. Though some made anecdotal references to indirect increases in house prices or a faster speed of sale, developers did not suggest SuDS had a substantial impact on pricing. For developers the commercial value of SuDS was seen to be in their marketing value or placemaking qualities, and any other amenity benefits to residents and the community. With this in mind, several interviewees emphasised that prices reflect the market, and sales effects constitute an indirect (placemaking quality, reassurance on flood risk) rather than direct premium.

> *"So clearly it adds value just environmentally, end of. Clearly. I mean, there's no two ways about it. I think, in terms of adding value, as in literally adding value, I don't think it makes much difference to what price we can ask for."* **- Large Retirement Home Builder**

> *"Our sales department generally promotes these features as a positive open space for the development. But there is no evidence that these features create a greater sales rate or price. It is recognised though, that a well designed and integrated SuDS Design can create valuable open space, wildlife habitats and community areas."* **- Large Developer**

Developers consistently emphasised that the benefits and amenities of SuDS features were more important to buyers than their technical function. Every developer suggested that buyers did not have a detailed understanding of SuDS and their function even if they appreciated their placemaking qualities or had some understanding of the impact on flood risk. It was broadly agreed that most homebuyers and members of the public are unaware of what SuDS are, even when they are present in a development. Several developers said SuDS were more readily understood by residents when they were visible, explained clearly, or accessible and integrated into the development.

> *"I think your average punter just wants the engineering to work. They're not going to pay more. They're not going to care, are they?"* **- Master Developer**

> *"I think new home buyers and the wider public don't really understand SuDS. They just see them as nature or grassland or a pond or features. They don't really probably understand the benefits that they're bringing or what they're delivering."* **- Large Housebuilder**

> *"I'd say that the awareness is probably low. A sales adviser would be talking to a customer much more about how beautiful their estate, how mature it looks, than they would talk about the benefits of this particular drainage system."* **- Large Housebuilder**

Challenges to the delivery of SuDS

Designing, delivering and maintaining HQS comes with a variety of challenges for developers.

One of developers' most frequently cited challenges was the impact of SuDS requirements on land use and site viability, particularly on smaller or denser developments where there is less available land to spare. Smaller developers often suggested that good SuDS delivery was more challenging than larger developers. Still, developers of all sizes said the chief challenge was in accommodating the required space within the development for SuDS features whilst at the same time trying to maintain as much developable land as possible to keep the site financially viable.

> *"The first thing I'm thinking about is 'What's the spatial allowance we have on-site to do this before it becomes unviable?' At a certain point we run out of space, and then everything goes into tanks under the ground. That is bad because no one likes tanks under the ground. It's not seen as good SuDS, high-quality SuDS. But there comes a point where you can't do anything else without losing land area."* **- Master Developer**

> *"Obviously they take up relatively large areas of land depending on the size of the site... so sometimes we are squeezed by landowners to clearly maximise the developable area of the land that they're looking to sell."* **- Large Homebuilder**

> *"Where we've seen SuDS being really positive is where there's enough space for them to be incorporated into the landscape properly. Where they're awful is where they're just a deep hole in the ground with a fence around it that greets people on arrival. That's probably partly our fault as well, as we're obviously trying to maximise the amount of land available for housing."* **Large Developer**

Beyond design, developers also raised concerns about the allocation of responsibilities for longer term maintenance of SuDS within developments. For one, there is uncertainty over responsibility for maintenance as this is not mandated in policy; interviewees made the point that there is often confusion as to the relative roles for local authorities, management companies, and homeowners. Several interviewees said they encounter reluctance from local authorities to adopt and maintain green features and permeable pavements, leading to fragmented private management and higher service charges.

The second concern was cost and specifically the additional service charges that maintenance brought about. This is especially true for affordable housing providers

and developments where service charges are a particularly sensitive issue. This causes tension with residents and creates practical risks for performance over the asset's life. It was agreed that proper maintenance and clarity of responsibilities for SuDS features was essential to securing buy-in from residents and avoiding issues.

> *"We'd like the local authority to adopt more areas. They won't adopt permeable surfaces on highways, roads, and footpaths. So at the moment we look after most of those areas and bear the cost whereas we'd like to push more of it onto the local authority for adoption."* **- Small Affordable Housing Developer**

> *"If we can't adopt roads, then... if you imagine you're one of the people buying your house in that estate, you'll have to pay us a separate service charge to maintain the road. And you just don't want that. You want [the] highways [authority] to have responsibility."* **- Master Developer**

> *"Our goal is ultimately to design something that works to whatever regulations are applicable, future proofing it as much as possible, and then hand over a fully functioning system to whoever authority or legal entity then is responsible for maintaining that into the future."* **- Large Developer**

A third concern raised by developers was the inconsistent approach of local authorities and regulatory bodies. While some praised planners and lead local flood authorities (LLFAs) for being pragmatic, many described contradictory demands between planning departments, highways teams, and water companies, as well as an occasional bias towards low-quality SuDS features over innovation. According to developers, these misalignments slow down delivery, add cost, stifle sustainable innovation and cause design compromises. Highway authorities in particular were singled out for being reluctant to support non-piped drainage solutions. Many developers said the quality of SuDS delivery hinges not just on design, but on how well different teams and authorities work together. Strong relationships with planners and lead local flood authorities can unlock better solutions, while a lack of alignment often forces compromise.

The policy framework for SuDS

SuDS are supported in the planning process but more can be done to help developers deliver.

Developers generally agreed that SuDS were supported through the planning process and that national policies are broadly easy to understand and comply with. They often suggested that backing from the local planning authority can aid the approval process

through LLFAs. Despite this delivery outcomes still depend on how different authorities interpret guidance and manage consultation with bodies such as highway authorities. In practice, similar schemes can face different requirements, timelines, and long-term costs due to differences in interpretation of policy across local authorities and regions. In addition, despite support from the planning authority, there is still a strong reluctance from highway authorities to adopt SuDS features.

> *"Planning officers don't know what they're asking for. They'll just listen to the advice of their internal drainage team and go along with it... at the moment, you tend to find that the planning process gets stalled because they try and satisfy every single consultee, including the SuDS side of things."* **- Large Developer**

> *"Divisions will look to incorporate new innovations, however some local authorities are not keen and will refuse to adopt systems, especially highway departments, where they are not familiar with the system or see it as a long-term maintenance issue. This is generally the case with local authorities, where they are reluctant to accept new products, innovations and revert back to more traditional features."* **- Large Developer**

> *"Our biggest challenge at the moment is to try and bring the different Government bodies together."* **- Master Developer**

Some developers felt that national SuDS policy suffers[7] from a lack of clarity, consistency, and ambition. Several described existing technical manuals and guidance as outdated or impractical, while others viewed core regulations as little more than a tick-box exercise. Although a few mentioned that evolving Environmental, Social and Governance (ESG) priorities and flood risk policies are starting to push the agenda forward, opinions were mixed — some welcomed this change while others were critical of them. Nonetheless, many developers said better direction from central government would be welcome.

Many developers specifically called for clearer language in the NPPF arguing that vague terms like "should" and "could" allow for inconsistent interpretation across local authorities and should be replaced with "must" which links to a mandatory requirement. However interviewees made clear they were not calling for an overpowering and prescriptive system that would stifle creativity and free thinking.

[7] To note, these interviews were conducted before national SuDS standards were introduced (in June 2025).

> *"From a designer's perspective, a lot of the wording was 'should' and 'could'. In some places it should be 'must comply'. Some of the manuals are just guidance, whereas in the Design Manual for Roads and Bridges (DMRB) it's definitive. I think there's a remit for that: not so overpowering that there's no free thinking, but there are bits where we should take the wording from 'should' and 'could' to 'must'."* **- Large Homebuilder**

> *"There needs to be a national framework. But everyone needs to be very clear on what the parameters are. And if your developer has come up with good solutions and is innovative and progressive, then that needs to be supported by the local authority and national Government and different bodies."* **- Master Developer**

> *"Every local authority is different. They've all got their own views as to what good looks like. You take a local authority in the Southeast and compare it to what's happening in the Northeast, chalk and cheese. But the same principles will apply. They'll just apply them in a slightly different way."* **- Large Homebuilder**

While the Independent Water Commission calls for the immediate implementation of mandatory SuDS in England, Wales' experience with mandatory SuDS was criticised by some developers as "regrettable and painful" with some SuDS Approval Body (SAB) still having their own views on what was acceptable. The requirement for adoption and long-term maintenance (through a commuted sum) was seen by some developers as financially burdensome, effectively a "developer tax", adding to viability concerns. One developer cited costs of up to £15,000 per plot under the Welsh system.

> *"The impact in Wales from a financial perspective, and a workload perspective for local authorities is vast. It could be up to £15,000 per plot that we have to pay as a tax effectively to make sure these things are looked after in perpetuity. If you want these things to be put in place the infrastructure has to be there to maintain them. But the developers are the ones that are funding them in Wales at the moment."* **- Large Homebuilder**

Conclusion

These interviews demonstrate a great deal of consensus amongst developers of all sizes — it's clear that they view there to be substantial amenity benefits for their buyers and residents. Not only are SuDS supported throughout the planning process but green spaces, water features and other innovative design elements have reliably positive impacts on the built environment and support the wellbeing of communities. This is only true provided SuDS are designed well — which is increasingly the case

according to developers — and maintained proactively even if it is a challenge given the uncertainty of the regulatory framework and additional costs implications.

It's also clear that the SuDS delivery process poses a few key challenges to developers — smaller developers in particular say they must manage the design requirements whilst keeping sites commercially viable, possibly leading to less room for innovation in the design of SuDS features. Similarly, an inconsistent policy landscape with competing priorities and responsibilities amongst delivery partners contributes to a less than efficient system for SuDS design and delivery. These are all issues that should be factored into consideration by policymakers when thinking about which planning and legislative reforms to pursue in the coming months and years.

CHAPTER TWO:

Core Economic Benefits of High-Quality SuDS

Context and Relevance

High-quality SuDS provide a wide range of benefits throughout the lifecycle of developments. Some of these are unique to HQS, while others are also delivered by low-quality SuDS (LQS) or traditional drainage systems[8]. In this section, we assess the value of legislation requiring all new developments from 2025/26 to 2029/30 to be built with HQS and mandating adoption that secures long-term maintenance.

Our modelling examines the potential benefits of constructing 1.3 million homes with HQS, defined below, with results assessed against a counterfactual of no policy intervention. 1.3 million is the OBR's most recent estimate of the number of homes that will be built over the five-year period to 2029/30[9]. The use of the OBR forecast ensures our estimate most accurately estimates the effects of a legislative change. Our counterfactual represents what would happen if there was no policy mandating HQS, rather than if no HQS were built — an important distinction. Our counterfactual includes a 40% share of homes built with HQS, as per Natural England's Green Infrastructure Framework[10]. To ensure the analysis reflects only the additional impact of mandating HQS, we exclude benefits that would likely be achieved through traditional drainage.

Drainage systems play a critical role in managing surface water runoff and groundwater, helping to manage flooding and reduce impacts on land, property, and infrastructure. They help support public health and safety by disposing of surface water, and reduce erosion and damage to roads and buildings.

Our research concludes that LQS as well as other drainage systems can for the most part achieve broadly similar levels of on-site flood mitigation as HQS and, as such, a policy intervention mandating HQS would not deliver additional economic benefits (related to reduced flood costs) through this mechanism alone. (Although HQS can prevent drainage systems downstream from flooding we did not have sufficient data to model this impact). However, HQS offer a natural solution to the challenge of surface

[8] *Low-Quality SuDS are defined as those that fail to deliver on the four pillars of SuDS design, and provide limited benefits outside of attenuation including amenity, biodiversity, water quality and quantity.*

[9] Office for Budget Responsibility, Economic and Fiscal Outlook, March 2025

[10] Natural England: Green Infrastructure Framework

water management, offering environmental protection, infiltrating, filtering and cleaning water before it enters watercourses and the main drainage system — if it reaches them at all. As such, we include within this report our estimate of the economic value of this mechanism.

Beyond these core functions, HQS deliver a set of wider social, welfare and economic benefits. These include biodiversity net gain, improvements to air quality, carbon sequestration, and the creation of blue–green infrastructure that provides health and wellbeing, amenity benefits and spaces for recreation. While new developments typically include some green spaces and features, such as trees, grass, planting and verges, legislation mandating HQS would ensure the delivery of more extensive and better quality blue–green space. By estimating the value of this additional provision, we capture its wider economic contribution.

In Chapter 4, we extend our analysis of benefits by examining the perceived value of SuDS to residents themselves. Drawing on our polling results, we assess the importance people attach to the specific benefits that SuDS provides. Using a sequence of willingness-to-pay questions, we estimate how much residents would be prepared to pay on top of their bills for these features. From this, we conduct a consumer surplus calculation to quantify the additional value of incorporating HQS into the 1.3 million new homes projected by the OBR, a calculation that allows us to estimate the total premium a population is willing to pay. This section is likely to be of particular interest to developers, as it is this perceived value that can help drive property prices and rental prices.

Methodology and Approach

There are many benefits associated with HQS. These can be categorised into core drainage benefits, indirect welfare benefits to society and residents, and a willingness-to-pay value placed on HQS by the public. In the next section we describe the overarching framework in which our economic modelling takes place before explaining the mechanism of each of the benefits we include. We include a full methodology for each of these benefits in the appendix.

To determine which of these benefits it was appropriate to assess, we first developed a comprehensive long list of potential benefits that may reasonably be expected to be of value in this context. This list was generated after a literature review, and draws from the Construction Industry Research and Information Association Benefit Estimation Tool (CIRIABEsT)[11]. We then carried out an appraisal of this longlist filtering down based on a set of predetermined criteria to determine which should be included in the analysis. The criteria were based on the following questions:

- Would mandated HQS deliver benefits additional to what would occur in their absence?
- Are robust, evidence-based methods available to measure the benefits?

[11] Ciriabest

- Can these methods reasonably be used at a macro (national) level, rather than at a development level?

A summary of our analysis is included in **Appendix A**.

Additionality is a key consideration here; does mandating all 1.3 million homes projected to be built using SuDS lead to benefits in addition to what is likely to happen anyway? To achieve this our analysis estimates the benefits of this policy regulation against what we call a 'business as usual' counterfactual, following standard Green Book methodology[12].

To determine this 'business as usual', we assume that for 40% of new homes, making SuDS mandatory would make no difference to the amount of blue-green infrastructure (BGI) including green roofs, trees, basins and ponds. This is in line with the target set out by Natural England's Green Infrastructure Framework, in which it states "40% of residential developments have green and blue spaces, green roofs or green walls"[13]. Given it is a target, rather than mandatory, we consider this a conservative assumption and an upper boundary. For the remaining 60% of homes, the additional trees, green roofs and high-quality human-orientated basins and ponds we assume to be associated with HQS are additional and are the source of the benefits. It should be noted, water re-use measures are not explicitly a part of the recommendations in the Green Infrastructure Framework, so for this benefit we assume 100% additionality.

In this report, we assume there is no additional biodiversity for any new homes due to the introduction of regulations in 2024 that mandate biodiversity net gain of 10% for nearly all developments[14]. However, we note that the mandating of SuDS may lead to greater on-site biodiversity.

Core Drainage Benefits

We define the core benefits of SuDS as those associated with the primary functions of any drainage system: removing surface water from areas of human development, reducing the risk of flooding, and source control (capturing, slowing, storing, infiltrating and harvesting runoff at or near its source). This report finds that many of these benefits are delivered equally by LQS, with the exception of improving water quality and source control.

Cleaner waste water

One of the most important benefits of SuDS is their ability to reduce the amount of pollutants entering rivers, lakes, and drainage networks. Cleaner water not only delivers direct ecological and social value, but also creates a tangible economic benefit by lowering the costs faced by water companies in conveying and treating wastewater that inevitably collects pollutants as it moves from the built environment into the

[12] The Green Book, HM Government, 2022
[13] Natural England, Green Infrastructure Framework, 2023
[14] Understanding biodiversity net gain, DEFRA, 2023

drainage system. Waste water can also be polluted by sewage cross contamination, but we were unable to develop methods to capture the extent to which SuDS can reduce this and so have not included it in our appraisal.

Rainwater harvesting and re-use

Source control — including the deliberate capture and re-use of rainwater — is a core component of an effective drainage system. It reduces runoff at source, eases pressure on sewers and treatment works, and cuts potable water demand and bills. For the purposes of our modelling, we aim to catch the value of the water that can be captured and re-used. To do this we assume that the roofs of new houses both function as green roofs, which provide both clean air benefits (described below) and as locations for capturing non-potable supply (e.g. toilets, garden use) via appropriately designed rainwater harvesting.

Wider Societal Benefits of high-quality SuDS

The wider welfare benefits of HQS can be seen as by-products of their primary drainage function: managing rainwater efficiently at its source, and preventing pollution from entering waterways and the wider natural environment. What distinguishes sustainable drainage systems is that they achieve these core purposes through natural solutions. In doing so, they generate additional benefits beyond their primary role, including: improving air quality, creating attractive green spaces, and contributing to broader environmental and social wellbeing.

Air Quality

Developments built with HQS can improve air quality by increasing the amount of blue–green infrastructure, such as trees, swales, and wetlands. These features help absorb or filter out harmful pollutants from the air. As a result, HQSnot only provide environmental benefits but also deliver direct health benefits to residents and people living or working nearby. Our analysis focuses on the role of trees and green roofs in improving air quality.

Carbon Sequestration

In addition to the function that it plays in extracting pollutants from the air, BGI also extracts CO_2 and so plays a role in reducing greenhouse gas emissions from the atmosphere. In this report we estimate the value of the carbon sequestration associated with the additional trees that are delivered with a mandatory SuDS policy intervention.

Amenity

Features such as trees, green verges, and ponds not only manage surface water but also enhance the visual character of developments, creating attractive public spaces and fostering healthier, more liveable neighbourhoods. Tree-lined streets and planted verges provide shade, mitigate urban heat (providing thermal comfort), and encourage

walking and social interaction, while ponds and wetlands act as focal points for recreation and informal learning. The benefits associated with additional trees and ponds are sourced from a willingness to pay study, also used by the Ciria Best tool.

Results

In this section we present the findings from our analysis of core drainage benefits and wider welfare benefits associated with the delivery of 1.3m homes using high-quality SuDS. This includes cleaner wastewater, rainwater harvesting, amenity, cleaner air and carbon sequestration.

The largest benefit is the amenity benefit, which we estimate to be worth £211 million per year until 2030, assuming 1.3 million homes are delivered. This is in comparison to the benefits of rainwater collection at £23.5 million per year and air quality benefit at £12.0 million. The remaining benefits provide negligible value, with cleaner wastewater at £380,000 and carbon sequestration at £140,000. The total economic value of these benefits is £247 million per annum, made up of £36 million of water related benefits and environmental value.

The results of the largest three benefits are illustrated in Figure 1, below.

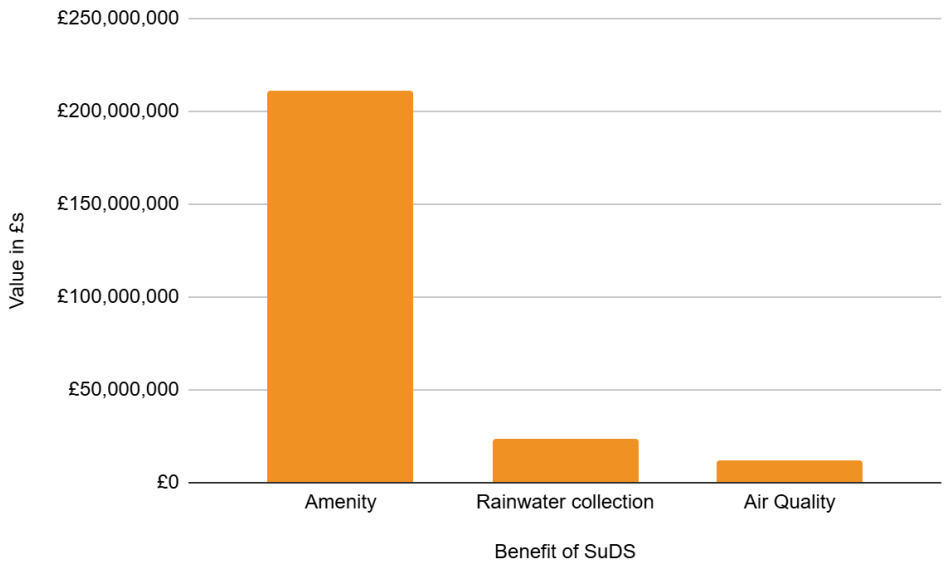

Figure 1: Annual amenity, water-related, and environmental benefits of delivering 1.3 million homes using SuDS.

With the exception of amenity, these benefits are relatively modest in scale. However, these benefits should be understood as providing additional value on top of the core purpose of the intervention — in this case, drainage. The value of this primary function is substantial and could include the total value of all flooding damages avoided through effective drainage, or even more broadly as the total value of development

itself, since modern housing cannot be built without adequate drainage systems. As explained earlier in the report, we do not include these flooding benefits for two reasons. Firstly, LQS provides a similar amount of protection against on-site development. Second, although HQS do relieve the possibility of flooding further down the drainage system, there is at present no robust method to reasonably estimate the impact.

The large size of the amenity benefit can be explained by the method used to estimate being based on a self-reported willingness-to-pay, rather than linked to actual market values, and so can be driven by emotional connections and the way people feel about features, which in this case is highly positive. In Chapter 4 we attempt to quantify this benefit with our own willingness-to-pay methodology that explores the value that people place on SuDS and the benefits they provide, and find similarly large estimates.

CHAPTER THREE:

SuDS: Public Perspectives

Context and Relevance

The environmental benefits of high-quality SuDS are well-established, but the extent to which the public recognises and *values* these benefits remains less clear. As well as conducting a willingness-to-pay experiment — expanded upon in Chapter 4 — we set out to understand how the public value SuDS as features within their local areas. To put these attitudes into adequate context we also sought to understand how the public feel about their local communities, neighbourhoods and residential areas more generally. We did this by identifying their top concerns and the factors that draw them to their neighbourhoods as well as how infrastructure and sustainability align with their priorities for the built environment locally.

Method and Approach

Public First polled 2,016 adults in England in an anonymous, online nationally representative survey from 9th - 14th July 2025. The findings below set out how the general public see their local areas, what improves their quality of life, what they prioritise when it comes to choosing where to live, and whether they would be willing to pay more for SuDS features.

Public First researchers also spent two days conducting in-person immersive fieldwork around eight developments in the Cambridgeshire area: Alconbury Weald; Clay Farm; Eddington; Loves Farm; Northstowe; Waterbeach Barracks; Wintringham Park; and Lamb Drove. This involved researchers interviewing over 70 local residents living or visiting developments with HQS. The qualitative element of this research provided deeper insights into the attitudes of the general public and how those living or working around HQS perceive them, specifically whether they understand the function of SuDS features, and whether SuDS contribute positively to their sense of wellbeing or not. This strand of research focused on people's views and awareness of SuDS, with particular focus on flooding and water management; views on green and sustainable features such as ponds, swales, and other forms of placemaking SuDS; an assessment of how they felt about maintenance of these features; and any benefits SuDS features may or may not have to the local area more generally.

The specifics of SuDS aren't well-known, but their benefits are highly valued.
Overall awareness of SuDS and their components were relatively low, with only 27% saying they had heard of swales, 42% saying they had heard of SuDS, and 23% saying they had heard of 'underearth capture', a fake term we tested to estimate how many people might be overstating their awareness. Even those living in SuDS developments had limited knowledge of SuDS as an overall approach, even if they recognised specific green or blue features.

> *"There's a couple of ponds, like natural drainage areas but I don't really know how it works to be honest. I don't really know much about it but I know it's touted as kind of an environmentally-friendly solution."* **- Man, 30s**

Despite low awareness of SuDS components explicitly the public sees benefits to living near green and blue spaces, primarily improved mental and physical well-being, and better air quality (see Figure 3). The perceived benefits of green and blue spaces tend to overlap with what the public valued in their daily lives, saying that good air quality, open and well-landscaped spaces, and good water quality in their local area would bring significant value to their quality of life. Residents we spoke to also highly valued SuDS features for their placemaking value; bringing greenery, aesthetic beauty and wildlife to the local area. In the words of one 40-year old woman, *"I like the lakes. They're lovely to see, I walk around them all the time. It's great, it's a real feature, it's very calming, it's beautiful."*

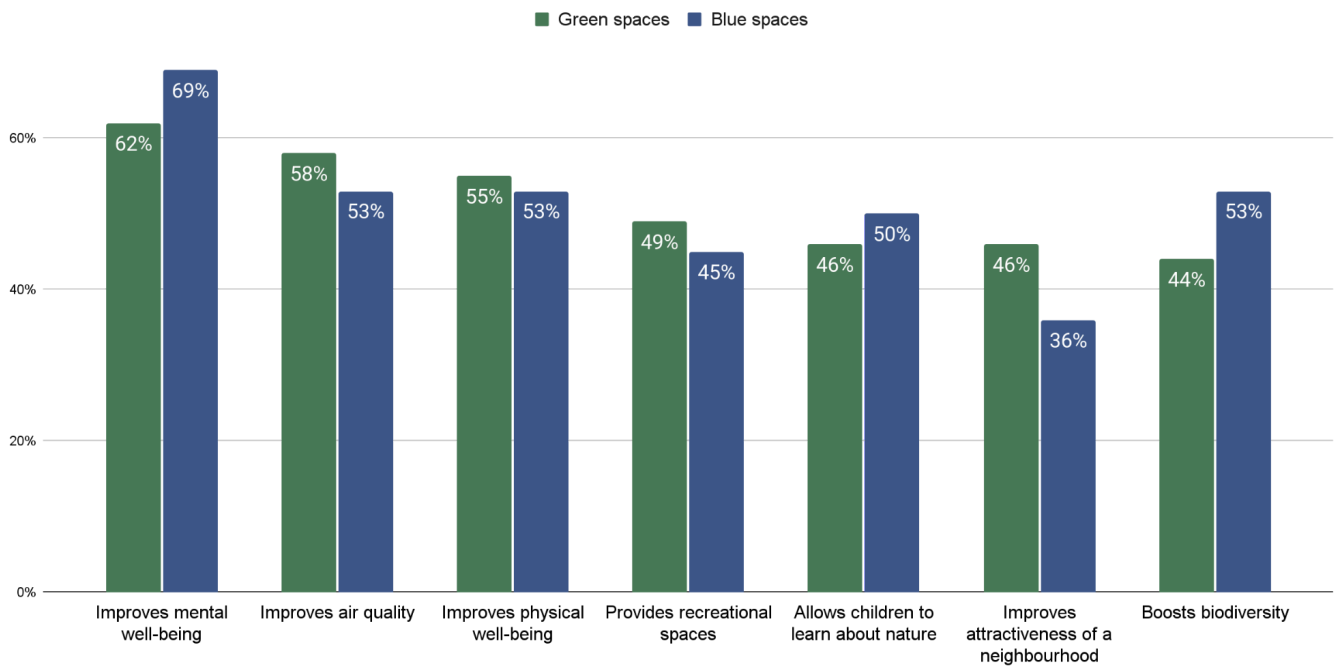

Figure 3: Which of the following, if any, are the main benefits of living in an area with [green spaces, parks, and trees / blue spaces, ponds, wetlands, and streams]?

The public also saw value — though markedly less value — in specific SuDS components like rain gardens, swales, and green roofs (see Figure 4). This highlights the need to frame discussions of SuDS around the tangible benefits they deliver for communities rather than the technical features themselves and ensure there is greater awareness and understanding of SuDS on features, interpretation boards and information packs.

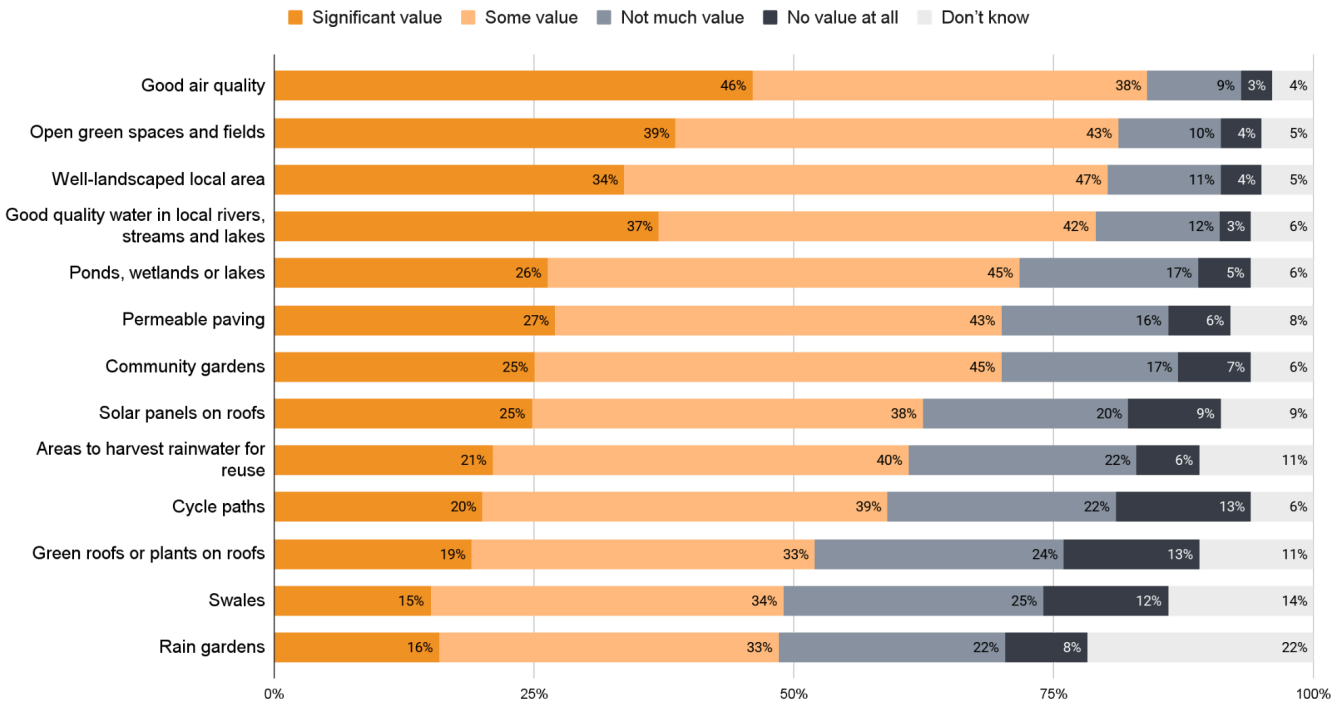

Figure 4: Thinking about your quality of life, how much value do you think each of the following would add if it were available in your area?

There were also some safety concerns about living near green and blue spaces, particularly related to anti-social behaviour (46%), perceived increased flood risks (43%), and lack of maintenance (36%), highlighting a two-fold issue: the challenge of ensuring regular maintenance of natural spaces, and a widespread misunderstanding that blue spaces increase flood risk. This misconception was less present in those living and working near SuDS developments, where there was a far greater (albeit still limited) understanding of the purpose of water features.

> *"I know they've got the balancing ponds which will help with any flooding so that it will funnel into them."* **- Woman, 30s**

A majority of the general public saw large open bodies of water — a common feature of SuDS — as a contributing factor to increased flood risk and indicated that they would be willing to pay more in order to live somewhere with a lower risk of flooding (62%). Evidence from speaking to locals demonstrated that some communication about the purpose of blue spaces was critical for alleviating concerns that open bodies of water in developments with SuDS exacerbates flood risk, demonstrating that this misconception must be addressed in future communications regarding planning and development.

Maintenance of SuDS features was another key predictor of residents' views on the value of SuDS features. In developments where SuDS were well-maintained, residents were quicker to mention the benefits they brought to themselves and the area. There were mixed views as to the material impact of maintenance fees due to the differing nature of how this maintenance was carried out: some regularly saw workers clearing drains and cutting grass but others thought they were less visible, which coloured their opinions of the value for money of those fees.

> *"Considering that we pay a maintenance charge, you would then expect them to maintain it, and they do it a couple of times a year, maybe three, but they need to do it regularly, especially in the summer months."* **- Woman, 40s.**

Despite these occasional complaints, most believed that, provided maintenance was done well, these fees were reasonable and necessary. 53% of the general public said they would rather pay a regular maintenance fee to upkeep their area than risk their area becoming more prone to flooding. Confidence in who can deliver this maintenance varies: the public is most trusting of local charities (60%), community groups (60%), and wildlife trusts (65%), above contractors (43%), the local authority (39%), water companies (38%), or management companies (32%).

The next generation of homeowners wants to see more high-quality SuDS.

Young people were most likely to say they wanted their area to have SuDS (72% of those aged 16-34) and would pay more for them; they're also the group most likely to buy a home in the next five years. Nearly two-thirds of those planning to buy a home in the next five years are between the ages of 16-34 (62%), and, as planning and development move forward in coming years, it's essential that their expectations and preferences are kept in mind.

63% said they would pay more to live somewhere that was part of a drainage system that reduced flooding across the country while 70% of young people said they would pay more to live somewhere that's environmentally friendly (see Figures 5 and 6).

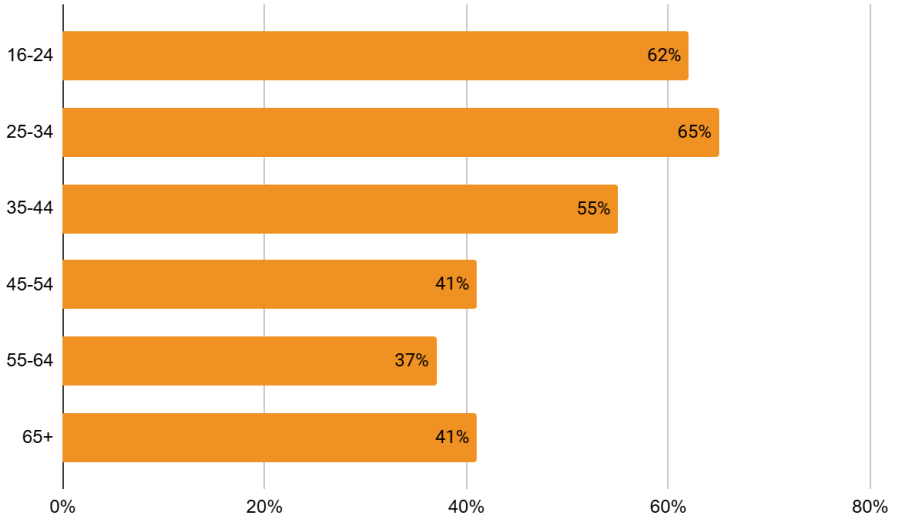

Figure 5: To what extent do you agree or disagree with the following statements? I would pay more to live somewhere that was part of a drainage system that reduced flooding around the country

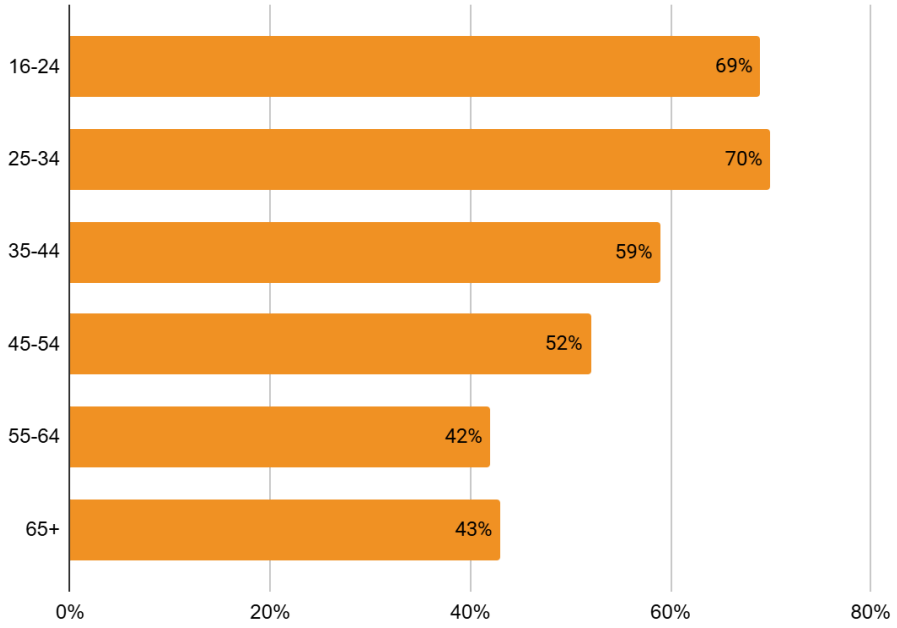

Figure 6: To what extent do you agree or disagree with the following statements? I would pay more to live somewhere that's environmentally friendly

Though young people would pay more to live in more sustainable developments, it was not always the case that residents (of all ages) living with SuDS saw their own developments as more sustainable. There were generally mixed opinions on this point across all of the developments that were visited: locals often cited a lack of public

transport as the main reason for the perceived lack of sustainability as opposed to anything related to SuDS features themselves.

> *"People have too many cars. It's been planned so that people will have fewer cars but because we're far away from large cities, people still need a car. People often park on footpaths. So it's not perfect."* **- Man, 40s**

This points to a need to go beyond the creation of green and blue space within developments if residents are to perceive their homes as sustainable.

Once explained, people were more supportive of SuDS because they're looking for more opportunities to be sustainable.

The public value green spaces, clean air, and clean water — and they're looking for opportunities to be environmentally-conscious (see Figure 7). 83% agree that they have a personal responsibility to protect nature but 62% feel like the system makes it hard to act sustainably — with England's Gen Z even more likely to feel this way (73% of 16-24 year olds). Despite this, there remains significant optimism about environmental protection, with a majority saying that it's not too late to stop climate change. There's a huge appetite for sustainability among the public, but less certainty about what it means to *act sustainably* — something they expect Government (79%) and businesses (74%) to lead the way on.

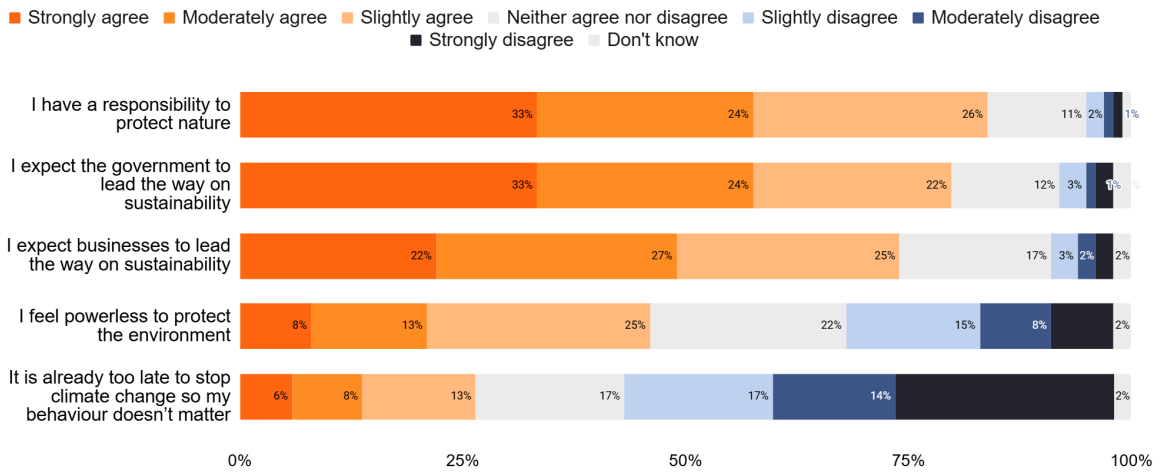

Figure 7: To what extent do you agree or disagree with the following statements?

Given the public's strong desire to protect the environment, awareness and support for the environmental benefits of SuDS rose significantly once they understood what SuDS entailed (82%). This offers a unique opportunity for the Government and businesses to take up a leadership role to raise awareness of SuDS and integrate and enforce SuDS measures into future planning and any legislative changes.

Sustainability is important, but it's not the only thing the public values.

Living in a sustainable housing development isn't a priority for future homeowners, despite seeing its benefits. The public's concerns about the local area centred on infrastructure and safety, with a third citing road quality as their top concern (29%), followed by crime (28%) and the death of their high street (28%). Environmental concerns like quality of green spaces (8%), flooding (8%), and air pollution (8%) came much lower down. When it came to deciding on their current neighbourhood, the public prioritised safety, affordability, and proximity to transit and work. Current homeowners were more likely to say they had factored in proximity to green spaces when choosing where they wanted to live, reaffirming that a well-maintained natural environment is a pull factor for homebuyers (22% compared to 14%).

When it came to purchasing a home, most residents did admit to having seen SuDS features marketed to them in sales materials, but they said it was not a factor in their buying decisions. Still, many people, particularly parents of young children, remarked that the presence of "green spaces" or "ponds" (which may or may not have been SuDS features in their minds) had played some part in their decision. Others who did not initially consider these features important often said they had been pleasantly surprised by their positive impact on their lives.

> *"No, it didn't factor our decision to move here but it's really nice to have that [water features] on your doorstep. It would be a factor if we were to move again though. We would want to know that there's no risk of flooding and there's nice walks and lakes."*
> **- Woman, 40s**

There was no suggestion that these were a larger factor than location, price, relative proximity of schools and other things, but clearly, the impact and importance of the HQS features were substantial once residents had moved.

Across both strands of the public research, a well-maintained and sustainable housing development was valued highly, with the public seeing its benefits ranging from health and wellness to clean air and water. Still, the link between SuDS and these benefits outcomes were not readily clear in people's minds. Similarly, for people to appreciate the full benefits of SuDS, they must be supported by the right infrastructure — such as drainage and sewerage systems, appropriate signage — and by the provision of public services that underpin any functioning community.

Conclusion

Ultimately, our research shows the public values green spaces, clean air, and clean water very highly. They are looking for opportunities to act and live sustainably where possible. SuDS features, although little known, were highly valued when their impacts were highlighted, to the point where a majority would be willing to pay more to maintain green spaces and reduce flood risk. Whilst people do not necessarily connect SuDS with these benefits, this is due to a limited understanding of them rather than a sense that SuDS are ineffective. These attitudes are particularly strong among young people and those hoping to buy a home in the future; these groups are most eager to live in a sustainable, environmentally-conscious way. They are the next generation of homebuyers and will shape market demand in coming years.

CHAPTER FOUR:

The Value of SuDS to Residents

Context and Relevance

Willingness-to-pay (WTP) is a widely used method for estimating the economic value of goods and services that may not have a direct market price. By asking individuals how much they would be prepared to pay for a particular benefit, WTP provides a way of quantifying value in monetary terms and capturing the wider social and environmental benefits of an intervention. In this explanation we explain both the mechanism behind the benefit and methodology.

In our own survey, we used WTP to estimate the value that the public places on sustainable drainage systems and the benefits they provide, such as flood and pollution management, enhanced amenity, biodiversity and cleaner air. Respondents were asked to choose between paying the same housing costs or paying higher housing costs for a home that included SuDS. Using these responses, we applied regression analysis to estimate the consumer surplus associated with these benefits.

Questions asked in the survey beginning with the phrase 'how much more would you pay monthly to live in a home if the following were true':

- "The area where you live includes SuDS that improves air quality in the area and reduces carbon dioxide in the environment"
- "The area where you live includes SuDS that decrease risk of flooding for homes further downstream in the drainage system"
- "Your home is set in a place that has a communal green area with a water feature (such as a pond)"

For the flood related WTP question, we make it clear that SuDS reduces the risk of flooding "further downstream in the drainage system", rather than for their own property. Figure 8 illustrates the average annual rental value that people would be willing to pay for the features of SuDS.

Impact on rental and property prices

Using our WTP estimates, we first calculated the potential impact of SuDS on average rents by using data from the ONS. We then estimated an annual economic impact value by modelling the impact that this rental increase would have were 1.3 million homes to be delivered with SuDS. This assumes that the value placed on SuDS is the same for both renters and live-in homeowners. The aggregate additional rent per year represents a meaningful economic benefit, reflecting both the direct and indirect value to households of sustainable drainage.

We also examined the long-term impact on property values. By converting rent increases into property prices using average rental yields, we estimated the uplift in house prices that could be expected from SuDS installation. We then estimate the total additional property value that would be generated using SuDS. We can view this estimate as the additional capitalised value of **all** future housing services residents receive when their properties include the features associated with SuDS. As such the numbers are far larger.

Results

Impact on rents

Our WTP analysis reveals that SuDS offer notable annual value to tenants: £90.40 per year for reduced flood risk, £121.60 per year for cleaner rivers, lakes, and streams, and £69.27 per year for additional communal green area with a water feature. In total, these benefits amount to a WTP of approximately £281.27 per year, when summed across all three services. These values are illustrated in the chart below:

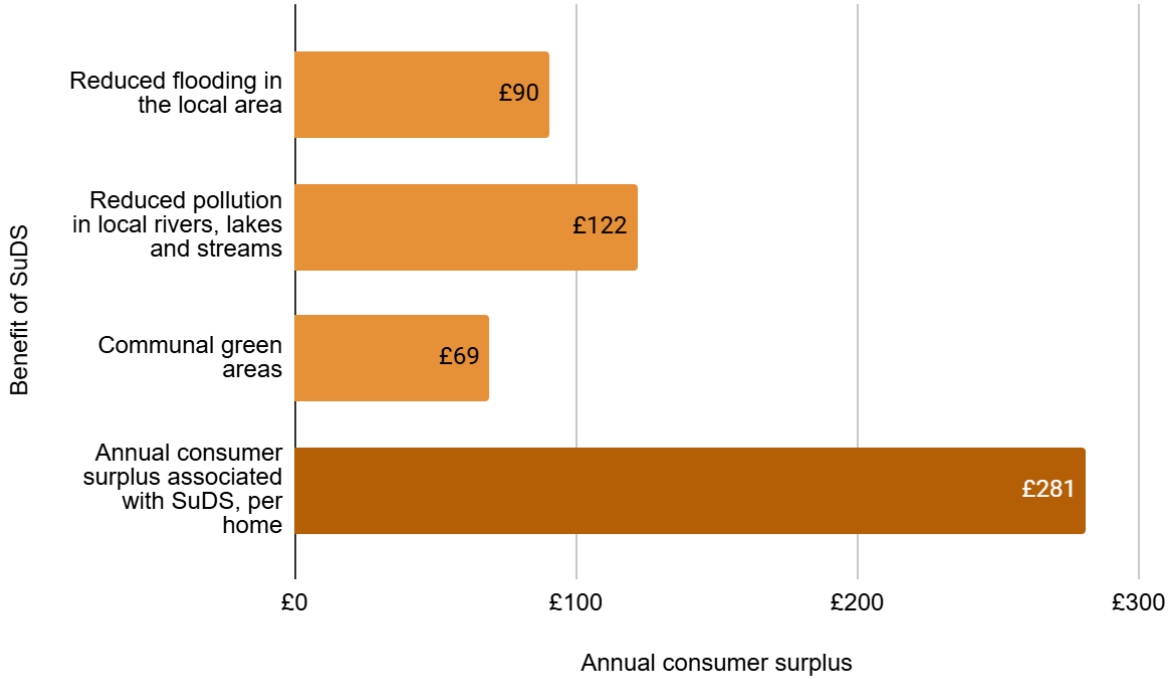

Figure 8: Estimated annual willingness to pay for SuDS, by benefit.

To put this in context, the average monthly private rent in the UK is around £1,344. Annually, that equates to £16,128 in rent paid by a typical household. The combined SuDS-related value of £281.27 thus corresponds to roughly 1.7% of a household's annual rent, suggesting that tenants place a measurable, but modest, premium on the added benefits of SuDS.

Were it to be mandated that all homes were built using SuDS and 1.3 million homes with HQS were subsequently delivered, this policy would be worth a total of **£219 million** a year through the additional value that residents place on SuDS. This assumes that 40% of homes would have been built with HQS regardless of the policy.

These estimates are similar in scale to the amenity benefit estimated in the wider economic impacts which totalled £211 million per year, which is unsurprising given that is also generated through a willingness to pay methodology. This measures the value that people place on things isn't only driven by the actual benefits to the economy of the intervention, but also the emotional relationship that people have with the perceived benefit.

Impact on property prices

Using the standard relationship between rent and property prices, where rent divided by rental yield is equal to property prices, and using a gross rental yield of 6.9%, we calculate the average increase in property price due to the various benefits of SuDS. We then combine them to generate a SuDS premium and apply data from the ONS that provides average rent data by property type to calculate a rent premium range.[15]

- Flood risk reduction (£90.40 annual rent) implies £1,310 in property value
- Cleaner rivers and streams (£121.60 annual rent) implies £1,760 in property value
- Additional communal green space (£69.27 annual rent) implies £1,004 in property value

Combined, these figures imply that a home with SuDS could be valued at between £3,160 for a studio apartment and as much as a £7,300 premium for a large family home. The estimate for an average property is approximately £4,001.

The results for an average property are summarised in Figure 9 below. This is approximately 1.4% of the average price of a property in the UK. These results are comparable to existing literature, for example ONS evidence finds that having a view over a green space or water boosted house prices by an extra 1.8% and the Ciriabest tool includes an estimated 1.4% premium for non-detached and 1.9% for detached properties with access to blue green space.[16]

[15] OFS, Private rental market summary statistics in England
[16] Ciriabest, Susdrain

Figure 9: Impact of SuDS on average property price

Were SuDS to be mandated for all new developments, we estimate that the new homes built over the next five years would be collectively worth an additional **£3.1 billion.** This is simply the capitalised value of the annual £219 million benefit described above, where the annual benefit represents the flow of value per year and the capitalised value the sum of all future annual flows of benefits, discounted to a net present value. Approximately a third of this benefit (£1.0 billion) derives from the **value** that residents place on flood mitigation.

Conclusion: What next for Policy?

This report's evidence can be summarised as follows. Developers appreciate the value of high-quality SuDS, the public value the outcomes brought by SuDS both in terms of green space and amenity benefits more widely. To this effect, they are willing to pay £4,001 more for homes that have the benefits of SuDS. To wider society this brings a series of economic benefits:

- HQS could be worth up to £219 million a year to residents through the additional value they place on SuDS.
- If SuDS were delivered for all new developments, the homes built over the next five years could be worth an additional £3.1 billion.
- SuDS would deliver £36 million of water related benefit and environmental value were it to be implemented to the OBR's projected 1.3 million homes.
- A home with HQS could be valued at approximately £4,001 more than an otherwise identical property without HQS.

These findings demonstrate that HQS should be central to how new housing will manage water, create amenity, and deliver climate resilience. Yet the evidence from developers, residents, and the wider public shows that policy fragmentation, incoherence and uncertainty over long-term adoption stand in the way of HQS delivery being the standard in all new housing.

This is why the first objective for policy should be **coherence and consistency**. Developers consistently pointed to the challenge of inconsistent standards across planning authorities, lead local flood authorities, water companies, and especially local highway authorities. Without clear and consistent requirements, Schedule 3 — or any equivalent framework — risks failing to deliver even if it is implemented. The National Standards for SuDS, published in July, are a welcome step towards this policy coherence, but more needs to be done to clarify the role and responsibilities of different stakeholders responsible for the water management system.

Following on from this, policy also needs to ensure **clarity** on responsibilities for long-term **maintenance and adoption**. Developers were unanimous that without secure stewardship, SuDS cannot be viable. Yet views diverged on who should take responsibility — local authorities, management companies, or developers themselves. The lack of clarity creates risk aversion, higher costs, tensions with residents, and risks to performance. Policy must establish:

- clear and consistent adoption routes;
- transparent and proportionate funding routes for maintenance (e.g. commuted sums) where local authorities adopt assets; and
- funding mechanisms that avoid excessive service charges, especially in affordable housing.

The third priority is **highlighting SuDS around placemaking benefits**. Our research clearly showed that buyers and residents do not value the technical drainage function but when they are well designed they do appreciate visible, integrated features such as ponds, swales, trees, and green corridors. This chimes with developers' experience. Our polling also confirmed that people greatly appreciate clean air, green space, biodiversity, and safe environments — even if they do not see these as clear benefits of SuDS. SuDS are clearly most valued for their placemaking benefits and should be framed in this way alongside their technical drainage benefits. Busting myths — such as the misconception that water features increase flood risk — is also key. The findings also point to the potential for greater engagement with residents on the benefits of SuDS features through interpretation boards and other sources of information.

The fourth priority is **early consideration of SuDS to reduce land take and maximise benefits and subsequent value**. Developers, particularly smaller ones, expressed concern that SuDS reduce developable area. One developer pointed out this leads to the use of underground tanks, end of pipe solutions, poor-quality outcomes for landowners, residents and the environment. To counter this, SuDS need to be considered at the land acquisition and site appraisal stage. Training for masterplanners, designers, developers and planners could emphasise that HQS can be integrated and delivered in a range of contexts, and highways authorities should be encouraged to adopt permeable surfaces. In turn, this integrated approach can help overcome issues with land-take and provide multiple benefits.

Finally, **adoption reluctance** remains a major barrier. Despite broad planning support, many local authorities and highway authorities remain unwilling to adopt SuDS assets. Funding for maintenance, building capacity, addressing liability concerns and clarifying responsibilities need to be part of the next stage of reform.

Ultimately, these priorities all push for SuDS to be embedded not only as drainage infrastructure but as infrastructure that enhances places and supports climate resilience. A coherent national framework, clear responsibilities for maintenance, early integration in site design, and better public communication are all essential. Delay only adds uncertainty. Decisive action — whether through Schedule 3 or equivalent legislation — will unlock the social, environmental, and economic benefits of SuDS and ensure the delivery of water-smart, liveable communities across the country.

Appendix A: Benefits Longlist Appraisal

Benefit	Included/ excluded	Justification
Air Quality	Included	Mandating quality SuDS will deliver additional BGI and through this improve air quality.
Amenity	Included	Mandating quality SuDS will deliver additional trees and ponds that has been demonstrated to have an amenity benefit.
Asset Performance	Excluded	SuDS could lead to an improvement in the functioning, lifespan, and cost-efficiency of other infrastructure assets. Although there may be a benefit through this mechanism, this would need to be calculated at a development level.
Biodiversity	Excluded	Biodiversity Net Gain legislation means it is unlikely building with quality SuDS will deliver BNG above BAU.
Building Temperature	Excluded	Although there is likely to be a benefit through this mechanism, it is difficult to make defensible assumptions that would allow us to model.
Carbon reduction and sequestration	Included	Mandating quality SuDS will deliver additional trees that have a sequestration benefit.
Crime	Excluded	Evidence base is weak.
Job creation	Excluded	Not applicable to residential developments and/ or evidence-base too weak to be used at a national level.
Education	Excluded	Not applicable to residential developments and/ or evidence-base too weak to be used at a national level.
Enabling Development	Excluded	This was investigated and although it is believed the benefits are potentially very large, the large amount of work required to carry out an assessment at a national level was not

		considered proportionate.
Flooding	Excluded	This was discussed within the wider group at length and it was decided that mandating high-quality SuDS would not reduce the occurrence of flooding when compared to low-quality SuDS.
Health	Excluded	Not applicable to small scale BGI and significant risk of double counting with amenity benefits.
Noise	Excluded	Evidence-base weak and/or needs to be measured at a development level.
Rainwater Harvesting	Included	Green roofs can be designed so that they also capture rainwater for non-potable use.
Recreation	Excluded	Not applicable to small scale BGI and significant risk of double counting with amenity benefits.
Tourism	Excluded	Not applicable to small-scale BGI in residential developments.
Traffic Calming	Excluded	Evidence-base weak and/or needs to be measured at a development level.
Water Quality	Included	SuDS improves the quality of water discharged into watercourses by filtering the waste water from built environment surface water runoff before it enters the main drainage system.
Water Quantity	Excluded	This would need to be calculated at a development level.

Appendix B: Survey materials

Materials	As seen by respondents
Definition of SuDS shown to respondent at question 39, before answering questions related to SuDS.	**Sustainable Drainage Systems (SuDS)** provide a more natural approach to manage rainfall and surface water runoff. They work with **natural processes to manage rainfall where it falls**, at, or close to the surface, and often include vegetation. SuDS can involve water soaking into the ground, slowing down the flow, and reducing the amount and flow of runoff as well as treating runoff to reduce pollution. **SuDS are multi-functional systems integrated within a development** (such as ponds, pavements where water can flow through to the ground, trees and vegetation, and other technologies) and can improve the quality of water in rivers, streams, and lakes, air quality, amenity, biodiversity and provide green spaces for the community.
Image A, shown in a randomised split sample experiment to 1,032 respondents.	

Image B, shown in a randomised split sample experiment to 984 respondents.	

Appendix C: Economic Modelling Methodology

Cleaner Waste Water

To estimate the value of this benefit, we first estimate the total costs currently borne by water companies to remove pollutants from water supplies using expenditure estimates collected by the ONS[17]. We then model the amount of this expenditure that is used on the chemicals, materials and equipment used to clean residential wastewater using evidence from the Utility Regulator in Northern Ireland[18]. The share of this cost that is due to residential housing is then estimated and applied using evidence from MOSL[19]. We then isolate the expenditure that comes about as a result of urban runoff by applying third party research and assuming the cost is proportional to levels of pollutant in the water[20]. This ensures that we are not including costs associated with cleaning contaminants from the sewage system. A total expenditure by dwelling is calculated using ONS total dwelling data.

To estimate the cost saving achieved by implementing HQS we estimate the percentage reduction in pollutants that can be achieved using evidence from Defra and apply it to our total expenditure by dwelling estimate[21]. Finally, the total value of mandating SuDS is estimated by applying this estimate to the number of additional homes that will be built with SuDS as a consequence of this policy. We adjust for inflation throughout this process to estimate the cost saving in 2025 prices.

Water re-use

To estimate the economic value, we first calculate the average collectible volume per dwelling by combining average rainfall estimates and typical roof areas, netting off the share retained by the green roof based on third-party evidence[22,23,24]. We then compare this potential supply with a lower-bound estimate of non-potable demand, derived by applying evidence-based shares for garden watering and toilet flushing to the average household's total water use[25,26]. The minimum of these two values (supply vs. demand)

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[17] Environmental Protection Expenditure Survey, Office for National Statistics, 2022
[18] Water and Sewerage Services Price Control 2021 - 27, Utility Regulator, 2021
[19] Shining a 'green' light on the non-household market - how data can support England's supply/demand challenges, MOSL, 2021
[20] A preliminary pan-European assessment of pollution loads from urbanrunoff, A.Pistocchi, 2020
[21] Pollution Loads Entering Water, DEFRA, 2025
[22] Met Office, UK and Regional Series, live
[23] Department for Communities and Local Government, Technical housing standards, 2015
[24] Speak et al, Rainwater runoff retention on an aged intensive green roof, 2013
[25] CCW, How Much Water do You Use?
[26] Northumbrian Water, Water's Worth Saving

is multiplied by the price per litre of water to give a per-home annual benefit from water re-use[27]. Finally, we scale to the programme level by multiplying this per-home benefit by 1.3 million homes, applying a down-weighting factor to account for the share of properties that will be flats.[28] As discussed above we do not apply our 40% additionality assumption to this benefit, instead assuming that all the introduction of water re-use features into new builds are always additional. Values are expressed in 2025 prices.

Air Quality

The number of additional trees per hectare for homes delivered with SuDS is taken from research by Sayers and Partners for the National Infrastructure Commission[29]. These trees are delivered specifically to help support the filtration and attenuation process and therefore their location matters. As such, we think it reasonable to assume these trees are delivered in addition to trees planted as part of a standard development. We then use an estimate of dwelling per hectare to estimate the number of additional trees per home[30].

To estimate hectares of additional green roof space associated with one new dwelling the average floor space per new dwelling estimated by the English Housing Survey was combined with an assumption that the area of roof available for use as a green roof would be half of this.

By applying our assumption on SuDS delivery additionality we estimate the number of additional trees and the amount of additional green roof space that would be delivered with a mandate to build all homes with SuDS. This is converted to the volume of harmful pollutants[31] absorbed per year using factors from the CiriaBest tool before being converted to a monetary value using damage cost estimates provided by Defra[3233]. This approach uses a damage cost method, which assigns a value to reductions in pollutants based on their net present value cost to society through health impacts. By estimating the quantity of pollutants absorbed annually by a tree or a hectare of green roof, and applying the corresponding damage cost values, we can quantify the economic benefits of improved air quality. We adjust for inflation and present values in 2025 prices.

Carbon Sequestration

We start with the number of additional trees planted, the calculation of which is derived in the previous section. The total annual sequestration in the UK from forests is

[27] Discover Water, Price Comparison
[28] MHCLG, Live tables on housing supply: indicators of new supply
[29] Surface Water Future Risk and Investment Needs, Sayers and Partners, 2022
[30] Land Use Change Statistics, DLUHC, 2022
[31] Specifically nitrogen dioxide (NO_2), sulphur dioxide (SO_2), particulate matter (PM_{10}), and ozone (O_3)
[32] Guidance to Assess the benefits of blue and green infrastructure using BEST, CIRIA, 2019
[33] Air quality appraisal: damage cost guidance, DEFRA, 2023

then combined with an estimate of the number of trees in the UK to estimate total sequestration per tree, scaled down to account for the sequestration that is undertaken by other means[34]. We apply value of carbon estimates from Defra and adjust for inflation to provide values in 2025 prices[35].

Amenity

In this report, we place a value on amenity benefits by first estimating the number of additional homes delivered with SuDS and, using ONS data on average household size, calculate the total number of residents who stand to benefit[36]. To convert this into an amenity we use the 'Street improvements including planting of trees and green verges' and the 'New or significantly improved ponds' amenity benefit estimates from the CIRIA Best tool. Although we would like to include more features we are limited by the evidence available and the risk of double counting. We also adjust for inflation to provide values in 2025 prices.

[34] Forestry Statistics 2023, Forest Research, 2023
[35] Traded carbon values used for modelling purposes, DEFRA, 2024
[36] Families and households in the UK: 2024, ONS, 2024

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