

ICaN Natural Capital Assessments Chipping Sodbury School

Natural Economy
Circular Economy
Low Carbon Economy



Chipping Sodbury School

Interventions

- **172m²** of sealed surfaces replaced with vegetated gardens, rain gardens, permeable surfaces and Sustainable drainage systems (SuDS)
- In particular a **51%** reduction in sealed surfaces, **16-fold** increase in permeable surfaces and **51%** increase in vegetated land

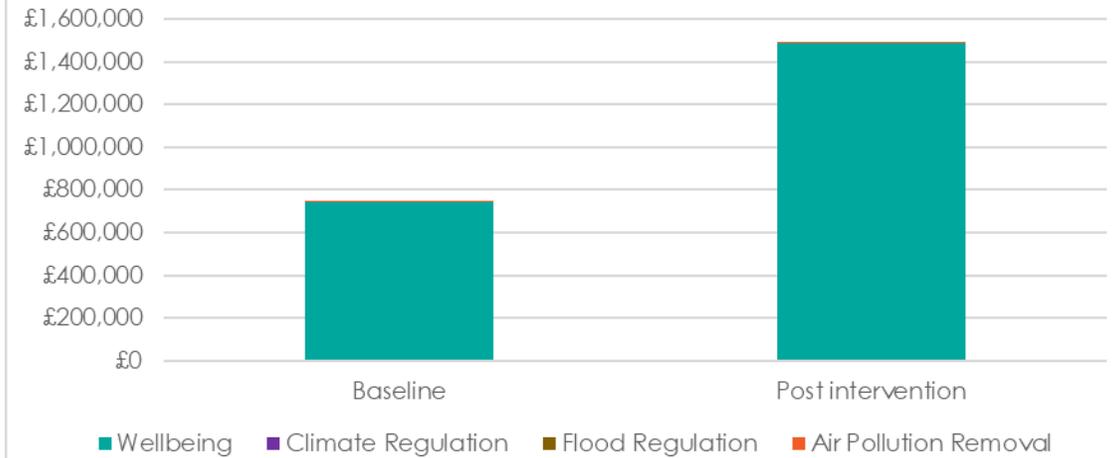
Quantitative Results

- Increase in ecosystem service provision of **£742,400** over 15 years (**100% increase**) driven by the wellbeing benefits.
- Notable uplift in climate regulation (**10%**), biodiversity (**21%**), flood regulation (**51%**) and air pollution removal benefits (**51%**)

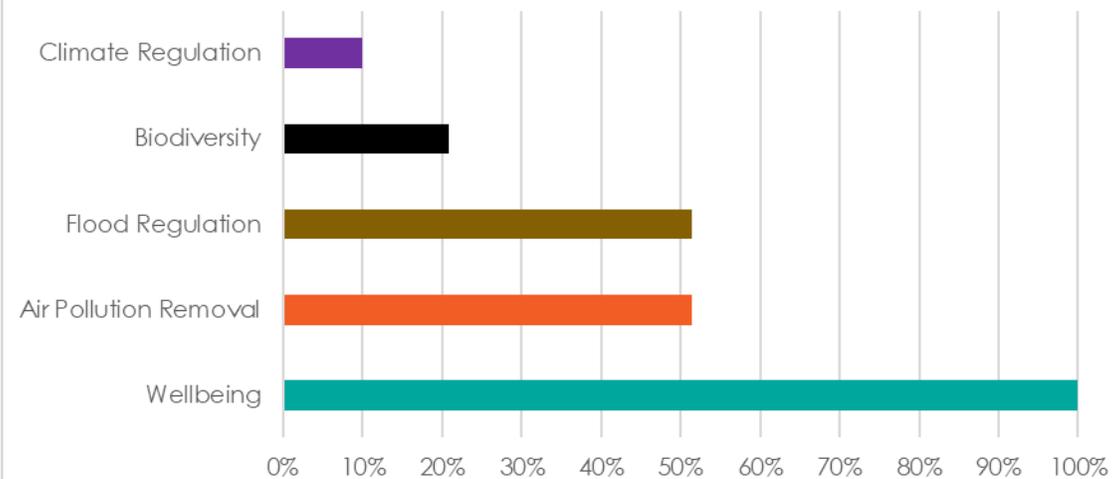
Qualitative Results

- The creation of vegetated gardens will improve **visual amenity** and provide opportunities for the **school children and staff to connect with nature** and enjoy the associated **health benefits** of being outdoors.
- Alongside the replacement of sealed surfaces with permeable surfaces and SuDS, this will also be expected to provide **natural flood management benefits**, improve **air quality** and **increase biodiversity**.

Uplift in Ecosystem Service Values over 15 Years



% Uplift in Ecosystem Service Values over 15 Years



Uplift in Ecosystem Service Values over 15 Years

Ecosystem service	Present Value (15 Years)		
	Baseline	Post Intervention	Uplift
Air Pollution Removal	£213	£322	£110
Flood Regulation	£32	£49	£17
Climate Regulation	£169	£186	£17
Wellbeing	£742,247	£1,484,494	£742,247
Biodiversity ¹	£1,201	£1,451	£251
Total excluding biodiversity	£742,661	£1,485,051	£742,390

¹ While the monetary benefits from biodiversity have been quantified and aggregated with the other benefits here for presentational purposes, it should be noted that the valuation likely double counts the supporting role it plays in many other environmental benefits including carbon sequestration and recreation.

Methodology

- The methods for estimating social uplift are based on Defra's guidance on Enabling a Natural Capital Approach (ENCA)¹ and aligned with HM Treasury's Green Book².
 - Other methods are adapted from the Environment Agency's Natural Capital Register Accounts Tool³ (also updated in July 2023), Natural England Biodiversity Metric 4.0⁴ and the Outdoor Recreation Valuation tool (ORVal)⁵ developed by the University of Exeter.
 - For all methods, prices are inflated to 2025 prices where applicable using the HM Treasury GDP Deflator⁶ to ensure comparability of values.
 - All monetary flows exclude biodiversity to avoid double counting.
- The uplift in social value from the interventions in the slides to follow represents those being provided over a 15-year period to align with SGC management decisions.
 - Benefits in future years are “discounted” i.e., adjusted for society's preference for benefits now compared to the future, in line with HM Treasury's Green Book guidance.
 - These are referred to as “15-year present values”

¹ <https://www.gov.uk/guidance/enabling-a-natural-capital-approach-enca>

² <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

³ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1180209/Natural_Capital_Register_and_Account_Tool_-_User_Guide.pdf

⁴ <https://publications.naturalengland.org.uk/publication/6049804846366720>

⁵ <https://leep.exeter.ac.uk/orval/>

⁶ <https://www.gov.uk/government/collections/gdp-deflators-at-market-prices-and-money-gdp>



About Eunomia

Eunomia is an independent sustainability consultancy driven by a genuine passion to make a positive change to the clients we work with and the communities they operate in. Founded in 2001, we have been pioneers in the sector - early advocates for helping NGOs as well as leading public and private sector organisations in the UK and overseas to adapt their approach and adopt more sustainable processes.

Our consultants are experts in the field, deeply immersed in the subject with the technical knowledge and skill to offer clients innovative, clear and practical recommendations. We are committed to finding solutions to better protect the planet, while supporting the wider aims and needs of our clients.

Each client is treated as an individual, with consultants taking the time to understand their objectives and how best we can support them. This personal service ensures a strong relationship is forged, based on honest and regular communication. It also ensures if these objectives change, there is the flexibility to adapt.

As an established leading independent consultancy, clients can have complete confidence that consultants will offer evidence-led solutions based on robust, impartial thinking that offer both pragmatic and positive outcomes.