



W045 BeST – assessing the multiple benefits of SuDS

November 2015

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The benefit of assessing benefits – why should we?

Should we value benefits?

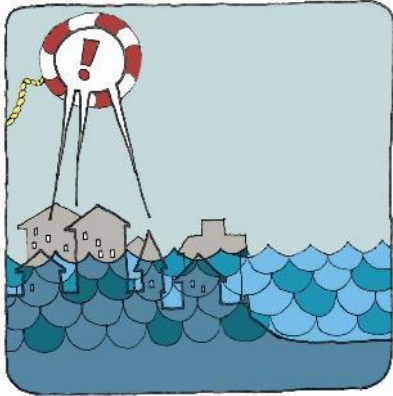


- Difficult to
 - Identify & link benefits to quantifiable outcomes
 - Value quantified benefits
 - Aggregate (benefits, populations, time)
- Uncertainty
- Takes time and resources
- Moral concerns

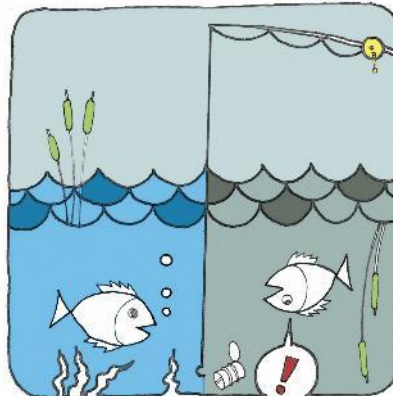
- **If we don't, they are zero**

We have challenges now and in the future

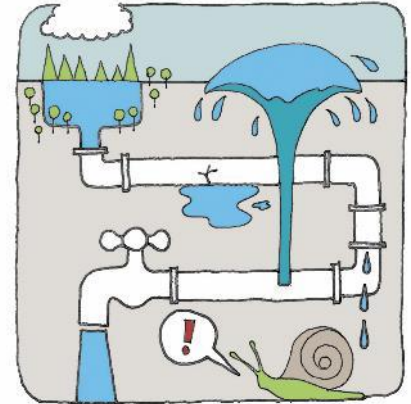
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Flooding – people and property



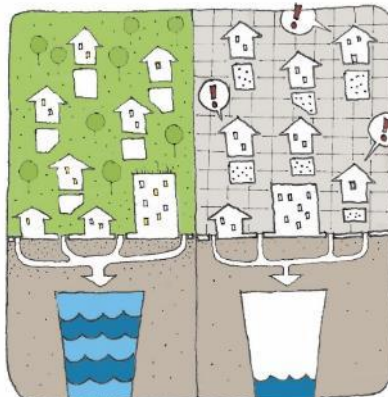
Water quality of urban watercourses



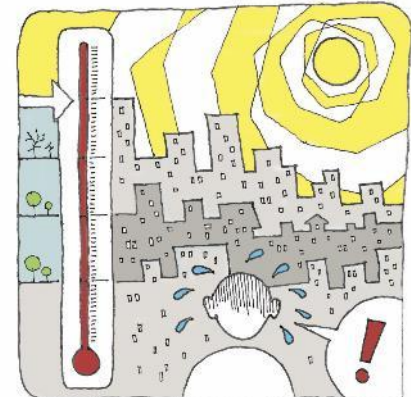
Connecting with water (on the surface)



Legislation and planning



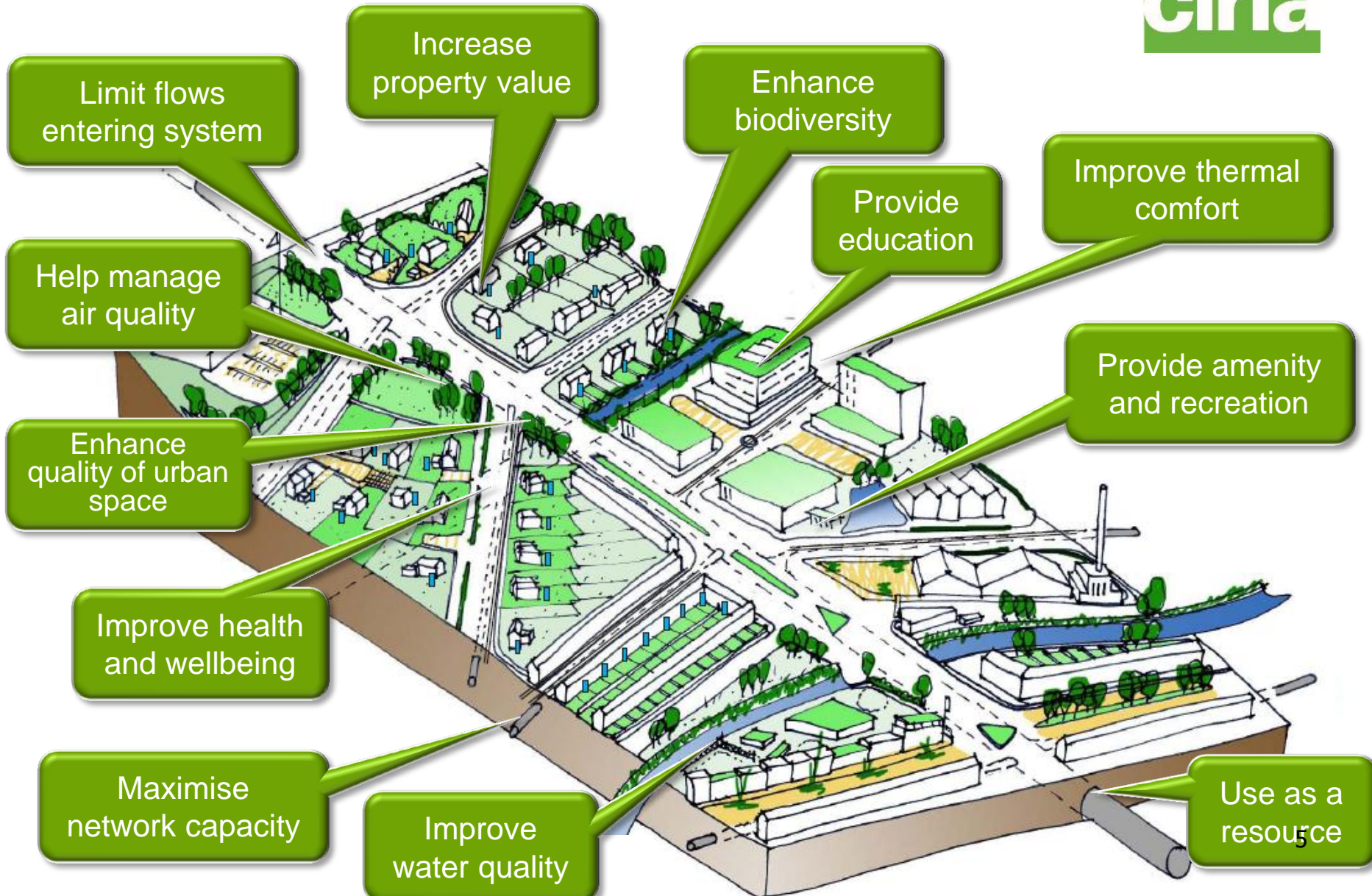
Support growth – population & economy



Liveability – quality of life

What is possible?

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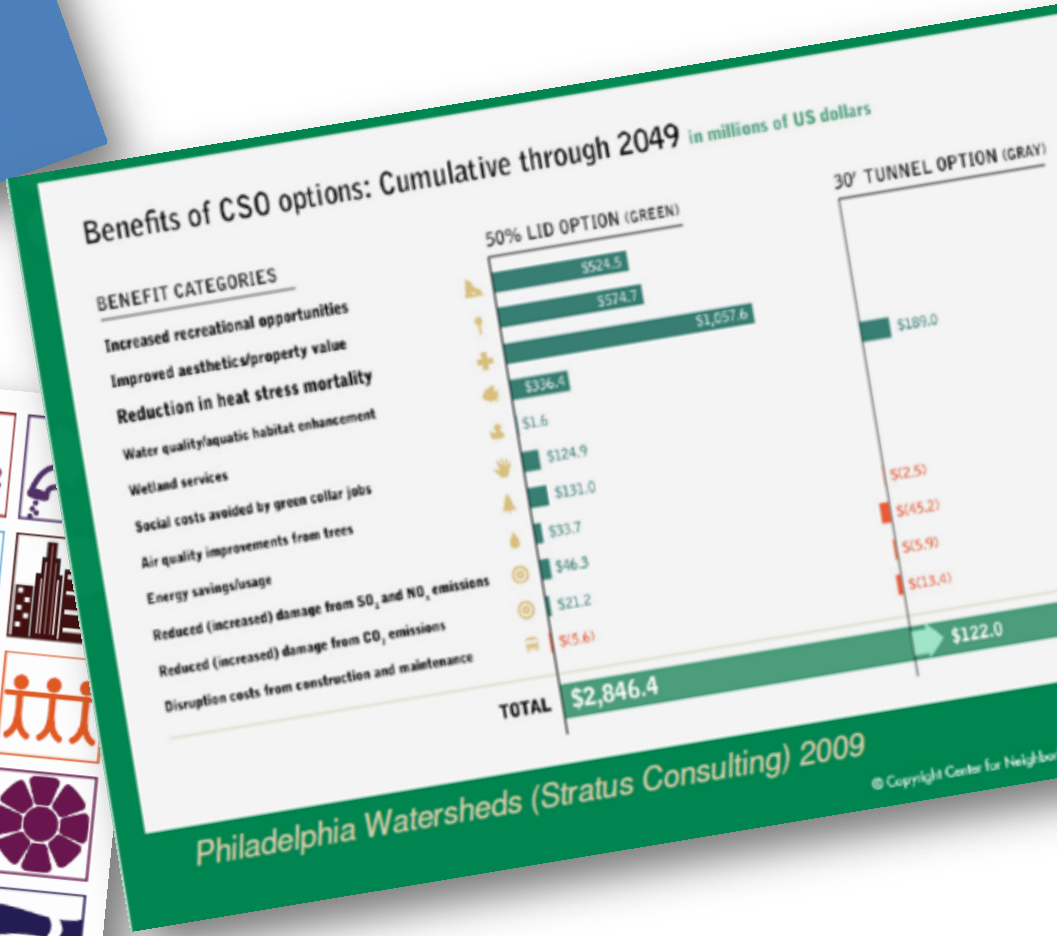
Evaluating the benefits unlocks the potential for...



- Fairer comparisons
- Better decision making
- Meeting funding requirements
- Enabling conversations
- Delivering SuDS



Some tools exist but.....



The Value of Green Infrastructure
A Guide to Recognizing Its Economic, Environmental and Social Benefits



Overall aim of BeST



- *collate and evaluate potential methodologies for assessing the benefits of SuDS*
- *develop approaches accepted by relevant stakeholders*
- *develop a tool to estimate the multiple benefits of SuDS*

Thanks to our funders



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Introducing: W045 BeST

Elvetham Heath, Hampshire

BeST: Benefits of SuDS Tool



- Collation of evidence (values)
- Structured assessment approach
- Monetises with present value
- Considers confidence
- Compare drainage options
- Provides detailed audit trail
- Support practitioners



MWH

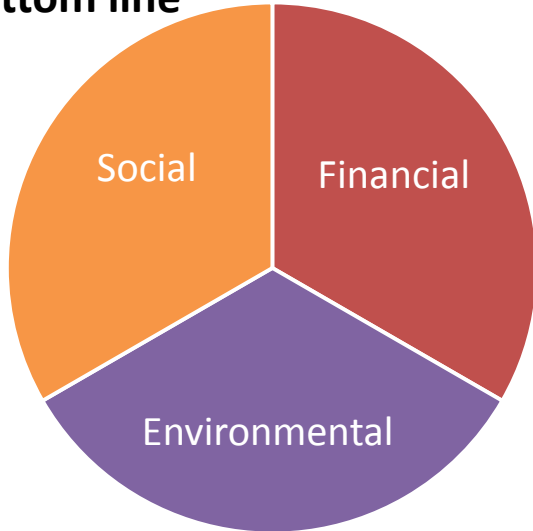


ch2m

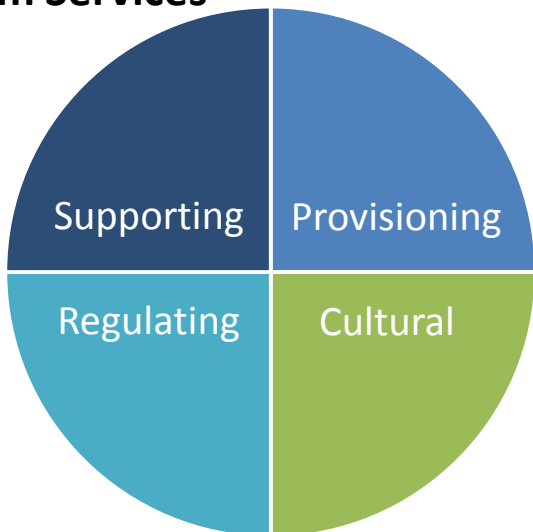
Wide range of benefits



Triple bottom line



Ecosystem Services



Benefit category	Monetised?
Air quality	✓
Amenity	✓
Biodiversity and ecology	✓
Building temperature	✓
Carbon reduction & sequestration	✓
Crime	✗
Economic growth	✗
Education	✓
Enabling development	✓
Flexible infrastructure	In development
Flooding	✓
Groundwater recharge	✓
Health	✓
Pumping wastewater	✓
Rainwater harvesting	✓
Recreation	✓
Tourism	✗
Traffic calming	✗
Treating wastewater	✓
Water quality	✓

Using BeST– applying it



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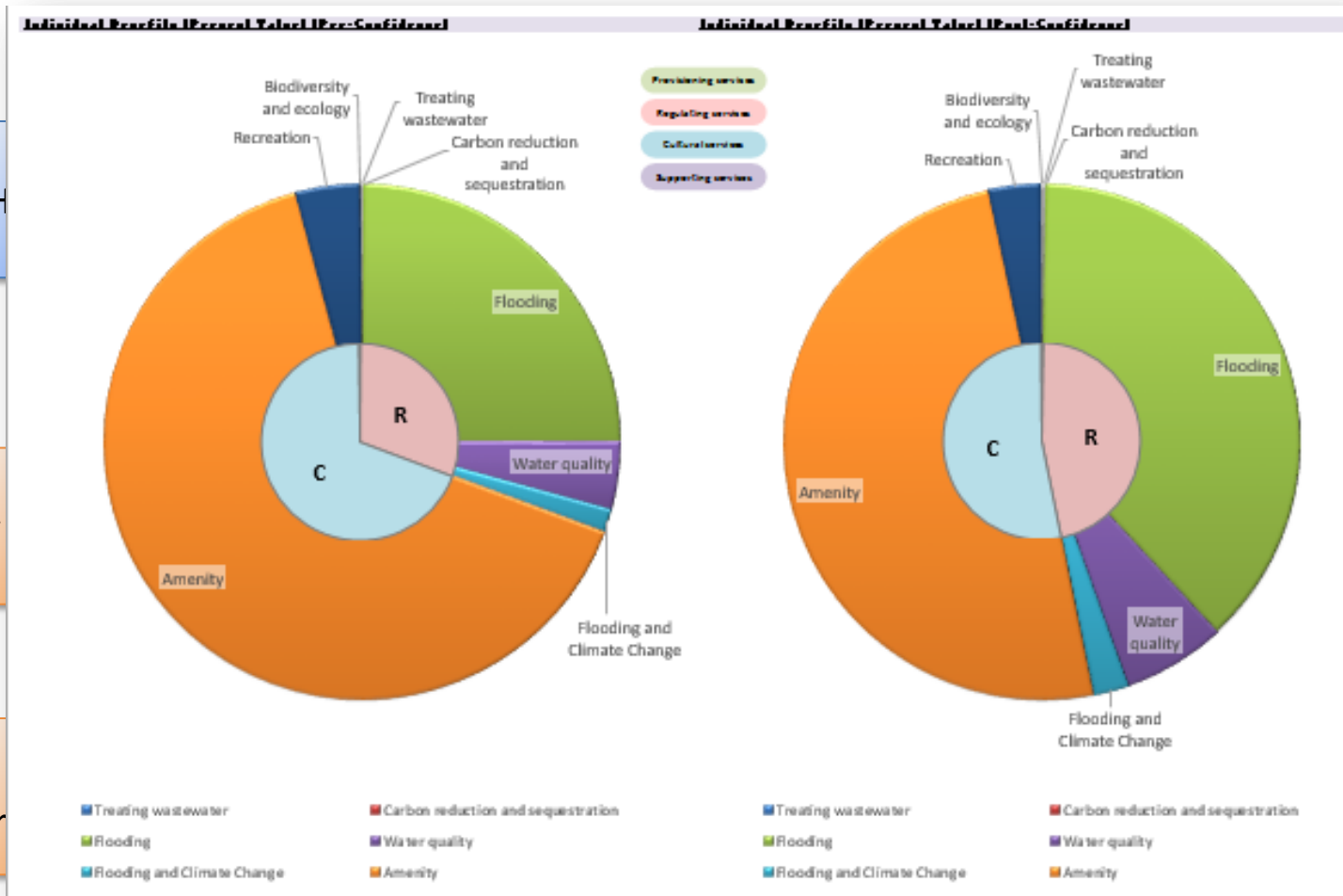
Values

Yearly lib

Work sheets to fill in

For information

Fill in & for information



Use WO45b BeST Options Comparison Tool to help compare the benefits of different options.



ciria Ecosystem Services Scheme Comparisons

(Project Details Incomplete)

Note: Paste in data from the tool to enable a comparison

Include option in chart?

YES YES YES NO

Scheme Reference Option 1 Option 2 Option 3 Option 4

Scheme Summary Conventional solution SuDS Minimum SuDS Extra

Scheme present value cost £350,000 £450,000 £489,000 £0

Scheme present value benefits £287,500 £443,000 £493,000 £0

Overall scheme net present value -£62,500 -£7,000 £4,000 £0

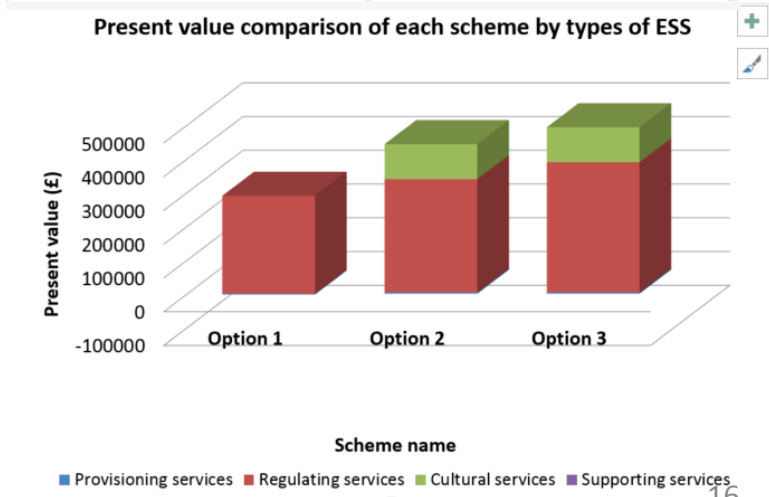
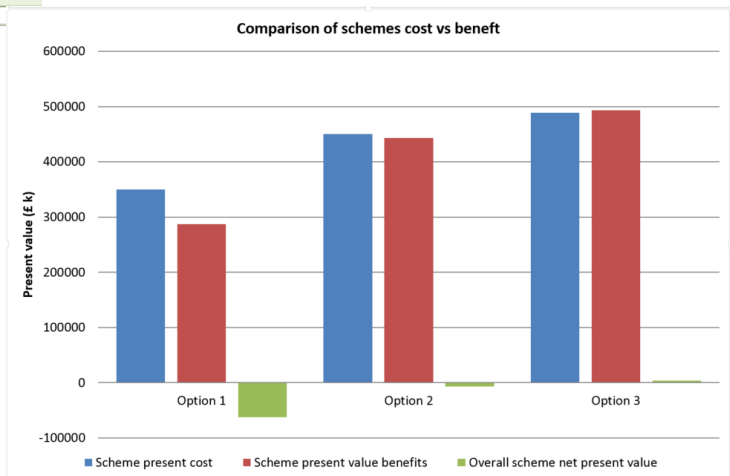
Impact Present Value (£) Present Value (£) Present Value (£) Present Value (£)

Provisioning services				
Economic growth				
Enabling development				
Flexible infrastructure/climate change adaptation				
Pumping wastewater	-2500			
Rainwater harvesting				
Tourism				
Treating wastewater				
Groundwater recharge		4000	4000	
User-defined				
User-defined				

Regulating services				
Air quality				
Building temperature				
Carbon reduction and sequestration				
Flooding	290000	290000	340000	
Water quality		45000	45000	
User-defined				
User-defined				

Cultural services				
Amenity		42000	42000	
Crime				
Education				
Health				
Recreation		62000	62000	
Traffic calming				
User-defined				
User-defined				

Supporting services				
Biodiversity and ecology				
User-defined				
User-defined				



BeST has a suite of outputs



Tools

WO45a
Evaluation

WO45b
Comparison

Support

WO45c
Technical
guidance

WO45d
User manual

Planned updates to BeST



- November 2015
 - Formatting and 2014 prices
- June 2016
 - Review of benefit values
 - Flexibility benefit
 - User inflation values
 - Benefit payback



Applying BeST

1. Provides an indication of likely £ benefit
2. Supports business case
3. Identifies who might benefit
4. Funding opportunities
5. Understand benefits to investigate further



Want to know more?

<http://www.susdrain.org/resources/best.html>

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Thank you