Improving Green Infrastructure to Enable Tourism and Development: Identifying and Assessing Sites for SUDS Retrofit in Blackpool, UK

DSD International Conference

Sustainable Stormwater and Wastewater Management

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Contents

- Background
- Methodology
- Identified sites
- Conclusions
Background

- 140,000 residents
- 11,000 people directly employed in tourism
- 20% of the population employed in tourism
- 10 million visitors a year
- 4 million visitors between September and December 2013
Background

- Most visitors come in summer
- Poor bathing water quality
- Threat to reputation
- Water company invested in solutions
- Lack of capacity in existing pipe network
Background

Environment Agency
Governs water quality

Planning
Governs the source

Water Company
Treats the product

How do we work together?
Background

- Opportunity to reduce water passing into combined sewers
- Improve bathing water quality
- Enable network capacity for development
- Improve amenity value of transport and public area networks
- Existing green infrastructure
  - Small in area
  - Isolated locations
  - Climate challenges
  - Local resistance
Background

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Methodology

- Application of SuDS Studio™
  - Standard datasets used as inputs
  - Rapid shortlisting
Methodology

- Stage 1: Input data
- Stage 2: Apply constraints and undertake manual check
- Stage 3: Shortlist from longlist of over 70 SuDS solutions
- Stage 4: Automated costing
- Stage 5: Optimisation of solutions
- Stage 6: Reporting of outputs

- Customisable parameters for selection of “feasible options”
- Customisable selection of “optimum solution”
Identified Sites

- Fylde Borough Town Hall
- Supermarket
- “Pontins” Holiday Centre
- Blackpool Airport
Identified Sites

- Green Corridor funding opportunity
  - Dickson Road
  - Central Drive
  - Talbot Road
  - Park Road
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Identified Sites

- Roads and streets
- Retail and supermarket sites
- Schools
- Large public, hospital and commercial buildings and grounds
- Large regeneration schemes
- Large Council Estates
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Conclusions

Significant retrofit opportunities identified
SuDS provide long term solutions
Critical to engage with town planners
Tourists and residents positively impacted by:
  - Improving bathing water quality
  - Enhancing first impression
  - Increasing amount of Green Infrastructure
## SuDS considered

<table>
<thead>
<tr>
<th>Type</th>
<th>Source</th>
<th>Sink</th>
<th>Attenuation</th>
<th>Connectivity</th>
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<td>Underground Storage</td>
<td>Infiltration, Pipe</td>
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<td>Road</td>
<td>Road, Verge</td>
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