Improving Blue-Green Infrastructure Sustainability
Developing sites to fit with users' activities

FACTSHEET

Project area: *Blue-Green infrastructure community engagement process*
Intended audience: *Developers, Local Authorities, Risk Management Organisations, Consultant Engineers*

Introduction

This factsheet proposes taking an activities-based approach to engagement during the design, delivery and maintenance of multi-functional Blue-Green Infrastructure (BGI). Through analysing people's existing or likely activities around BGI spaces, the approach supports more extensive and longer-term consultation and co-working with identified groups. This, in turn, should improve sustainability by encouraging more appreciation of sites and facilities, more appropriate behaviour, enhanced community ownership and voluntary lay stewardship.

Background

Despite previous studies, not enough is known about people's Blue-Green Infrastructure (BGI) preferences, their appreciation of the primary functions & proposed multiple benefits and so, relatedly, how they might act around sites. Consequently, there is some debate around BGI's likely longer-term maintenance costs and sustainability.

The proposed 'amenity' of BGI is very under-defined; engagement with local communities will be needed to understand preferences - but who will the communities concerned be? Multiple different groups might engage with BGI for different reasons, and so have different amenity requirements. Understanding local interests could improve BGI designs to better fit with users, potentially improving site-treatment and voluntary 'stewardship' potential.

'Appropriate behaviour' (such as not leaving litter and dog-mess) will be required from all site-users. Some voluntary stewardship from others (lay clearing and maintenance, monitoring performance and problems) could then help limit maintenance costs and improve appreciation and perceived amenity. Some studies have considered the connection between users' attitudes and behaviours, however they have been based around demographic data and haven't produced any definitive conclusions. This Factsheet makes the case for understanding user-groups through their *activities*.

Demographics and 'Practices', Behaviour and Willingness to Engage

The research team issued postal surveys to residences close to two BGI sites (Belfast and Newcastle). The surveys asked about demographics, site preferences, activities undertaken and clearing & maintenance that respondents were either already engaged in or might be willing to undertake.

Both sets of results showed very positive feelings towards the BGI and appreciation of suggested benefits, although smaller numbers said they would be willing to clear (30%) or help maintain (22%) sites. However, these figures still bode well for community engagement potential, were schemes to be put in place. Finding ways of identifying these volunteers would be useful; demographics were poor indicators of willingness to engage, with only age (Belfast) and length of residence (Newcastle) showing slightly stronger dispositions.

Contrary to expectations, the parks' most regular visitors were not the most willing to volunteer; concern for and engagement with BGI amenity was less related to visit frequency than to activities.

Site-users were categorised into six main activity-types: *pure exercisers* (selecting only this option); *dog-walkers* (those selecting this were so classified, regardless of other activities); *active recreational exercisers* (games or recreation with exercising); *relaxation and social exercisers*; *other reasons* and *non-visitors*. Active recreational exercisers were most willing to engage with voluntary stewardship, and those with multiple reasons most likely to already be collecting litter and slightly more willing to volunteer. This may be down to space-understandings, dog-walkers and pure exercisers having a more functional perspective (space and paths), and relaxation, social and game-seekers more inclined towards stewardship of their material requirements (aesthetics and amenity).



Implications & Lessons for Engagement

With BGI retrofits, people might be surveyed (or activities observed) once desired hydrological and ecological outcomes were identified, prior to design work. This could help identify existing activities, develop ideas around activity groups' voluntary stewardship potential and then orient engagement towards these groups, to improve benefits-delivery and hopefully buy-in and site 'ownership'. With new developments, likely activities could be hypothesised from work with existing communities and careful use of wider studies, identifying gaps in local amenity provision. Practitioners could then include design features likely to encourage more sense of amenity, helpful activities and so 'ownership' (e.g. paths, seating, flora and viewing areas).

An activities focus could help in identifying and seeking to accommodate different groups of users; providing alternative-use spaces for activities that don't fit together easily (e.g. active ball-sports and quiet rest areas), or discouraging less socially-acceptable activities (e.g. drinking, drug-use and rough sleeping). This would help focus engagement spend to encourage more appropriate behaviour, enhance sense of 'ownership' and so hopefully voluntary stewardship, such that performance and multiple felt BGI benefits were improved over the longer-term and at reduced cost.

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Reference: Lamond, J.E. & Everett, G. (2019) Sustainable blue-green infrastructure: a social practice approach to understanding community preferences and stewardship. *Landscape and Urban Planning*, 191.

Research team: University of the West of England, Jessica Lamond (Jessica.lamond@uwe.ac.uk), Glyn Everett

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urbanfloodresilience.ac.uk

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