

## Blue Health: Water, Health & Well-being – Salutogenic Benefits

### Introduction

This research builds on the current evidence base showing a salutogenic (i.e. health improving) benefit of green space (termed “green health”). Based on this evidence we posited that water settings (blue space) should hold similar health benefits, i.e. offer opportunities for increased physical activity and recreation; afford opportunities for social contact – planned or impromptu; and promote psychological restoration and stress reduction. The purpose of this project was to review the literature and draw together the current research evidence showing positive benefits of water settings on physical, social and mental wellbeing.

### Key Points



- Water settings offer greater opportunity for perceived psychological restoration than either green space only or urban settings (White et al., in press; White et al., 2010; Volker and Kistemann, 2010).
- The strongest evidence of a salutogenic benefit of blue space is for coastal settings: people living closer to the coast in England report better general health and – as found with green space – this appears to be greater for more deprived communities. (Wheeler et al., in press).
- Increased physical activity is associated with living in closer proximity to the coast in Australia (Bauman et al., 1999). Seaside settings are also amongst people’s favourite places (Korpela et al., 2010). Whilst it could be assumed that coastal settings offer increased opportunities for play and social recreation, we found no research evidence to support this.
- Preferences for water settings are more sensitive to environmental parameters (e.g. light, climate) than green space; these findings may be particularly pertinent to the Scottish climate.
- Aquatic sounds have the potential to promote restoration and screen noise of traffic but this potential for health (and for increased productivity in office environments) has not been reported in the literature.

The research to date has relied on self-reported indicators of health and well-being; priorities for further research – agreed in consultation with Scottish stakeholders – include:

quantification of health benefits using objective indicators in ‘real world’ everyday settings; evidence of long-term health benefits; evidence supporting active and social recreation benefits; identifying the barriers to recreational experiences (e.g. issues of risk, safety, and maintenance).

## Research Undertaken

The main approach of the research was a literature review using systematic review principles (e.g. clear search terms, inclusion and exclusion criteria), reviewed by academic peers and key stakeholders (e.g. NHS Health Scotland, SEPA). Efforts were also made to track grey literature in the field. Workshops with stakeholders were held to identify priority areas of interest for the review, to disseminate key findings from the research and to re-visit stakeholder priorities post research.

This summary is one of a set of four derived from the BlueHealth project. All summaries and the project report are available at [www.crew.ac.uk/publications](http://www.crew.ac.uk/publications). Please see project report for details of all references cited.

## Policy Implications



The strongest recommendation to emerge from the review is the potential for blue space to promote psychological restoration, with some limited evidence to indicate coast settings are beneficial to general health and physical activity. The parallel research field of “green health” supports this evidence and suggests blue space can also offer scope for social recreation. Scottish policy makers should therefore consider increasing and promoting access to water settings – and particularly coasts – for active and passive recreation. We recommend policy makers think in terms of ‘blue-green corridors’ or ‘blue-green space’ (rather than referring to blue and green space as separate entities, the trend in the literature to date), since in Scotland water is mostly found within the

context of green space. In urban settings, we recommend more use of water features to screen traffic noise and increase visual and social amenity, although further research is needed to quantify these benefits on office workers etc.

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Volker, S. and Kistemann, T. (2011) The impact of blue space on human health and well-being – Salutogenic health effects of inland surface waters: A review. *International Journal of Hygiene and Environmental Health* 214(6): 449–460

Wheeler, B., White, M., Stahl-Timmins, W., and Depledge, M.H. (2012) Does living by the coast improve health and well-being? *Health and Place* Vol 18: 1198–1201

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