Preliminary Environmental Information Report

Appendix 11.2

Appendix on Health Evidence Base

Appendix on Health Evidence Base

1 Introduction

1.1.1 This appendix provides hyperlinks to a range of academic and other sources of information explaining the links between typical scheme effects and human health.

1.1.2 The reference sources have been grouped into the relevant main thematic areas covered by the likely significant effects for health identified in the River Thames Scheme (RTS) Preliminary Environmental Information Report (PEIR). These are noise and vibration, air quality, water environment, light pollution, flood risk, access to green open space, access to blue open space, and access to active travel provision.

2 Noise

Barton, H. et al. (2002) Shaping neighbourhoods. A guide for health, sustainability and vitality. London: Spon Press.

Basner, M. et al. (2014) Auditory and non-auditory effects of noise on health. Lancet 383(9925), p1325-1332.

European Environment Agency (2020) Environmental noise in Europe – 2020. Publications Office. ISBN 978-92-9480-209-5.

Greater London Authority (2018) London Environment Strategy.

Science and Technology Committee (Lords) (2023) The neglected pollutants: the effects of artificial light and noise on human health. UK Parliament.

Stansfeld, S. A. et al. (2000) Noise and Health in the Urban Environment. Reviews on Environmental Health.

Stansfeld, S. A., & Matheson, M. P. (2003) Noise pollution: non-auditory effects on health. British Medical Bulletin 68(1), p243-257.

World Health Organisation (2018) Environmental noise guidelines for the European Region.

3 Air Quality

Amann, M. et al. (2020) Reducing global air pollution: the scope for further policy interventions. Philosophical Transactions of the Royal Society A 378(2183). Royal Society.

Barton, H. et al. (2002) Shaping neighbourhoods. A guide for health, sustainability and vitality. London: Spon Press.

Braithwaite, I. et al. (2019) Air Pollution (Particulate Matter) Exposure and Associations with Depression, Anxiety, Bipolar, Psychosis and Suicide Risk: A Systematic Review and Meta-Analysis. Environmental Health Perspectives, 127(12).

Cacciottolo, Mafalda, et al. (2017) Particulate air pollutants, APOE alleles and their contributions to cognitive impairment in older women and to amyloidogenesis in experimental models.

Gowers, A. M. et al. (2020) Using epidemiology to estimate the impact and burden of exposure to air pollutants. Philosophical Transactions of the Royal Society A 378(2183). Royal Society.

Greater London Authority (2018) London Environment Strategy.

4 Water Quality

Haseena, M. et al. (2017) Water pollution and human health. Environmental Risk Assessment and Remediation 1(3).

Scanlon, M. M. et al. (2020) Water Management for Construction: Evidence for Risk Characterization in Community and Healthcare Settings: A Systematic Review. International Journal of Environmental Research and Public Health 17(6).

Schwarzenbach, R. P. et al. (2010) Global Water Pollution and Human Health. Annual Review of Environment and Resources 35, p109-136.

United Nations Environment Programme Global Environment Monitoring System (GEMS)/Water Programme (2008) Water Quality for Ecosystem and Human Health, 2nd ed. ISBN 92-95039-51-7.

World Health Organization (2019) A guide to equitable water safety planning: ensuring no one is left behind.

World Health Organization (2021) Toxic Cyanobacteria in Water, 2nd ed. CRC Press.

5 Light Pollution

Chepesiuk, R. (2009) Missing the Dark: Health Effects of Light Pollution. Environmental Health Perspectives 117.

Dominoni, D. M. et al. (2016) Light at night, clocks and health: from humans to wild organisms. Biology Letters 12(2). Royal Society.

Hölker, F. et al. (2010) The Dark Side of Light: A Transdisciplinary Research Agenda for Light Pollution Policy. Ecology and Society 15.

Kernbach, M. E. et al. (2021) Light pollution affects West Nile virus exposure risk across Florida. Proceedings of the Royal Society B 288(1947). Royal Society.

Science and Technology Committee (Lords) (2023) The neglected pollutants: the effects of artificial light and noise on human health. UK Parliament.

6 Flood Risk

Environment Agency (2022a) Flood risk management plans 2021 to 2027: national overview (part a).

Environment Agency (2022b) Thames River Basin District Flood Management Plan 2021 to 2027.

Fewtrell, L. et al. (2011) The microbiology of urban UK floodwaters and a quantitative microbial risk assessment of flooding and gastrointestinal illness. Journal of Flood Risk Management 4(2), p75-139.

Milojevic, A. et al. (2016) Population displacement after the 2007 floods in Kingston upon Hull, England. Journal of Flood Risk Management 9(2), p97-192.

O'Donnell, E. C., & Thorne, C. R. (2020) Drivers of future urban flood risk. Philosophical Transactions of the Royal Society A 378(2168). Royal Society.

Thorne, C. R. et al. (2015) Overcoming uncertainty and barriers to adoption of Blue-Green Infrastructure for urban flood risk management. Journal of Flood Risk Management.

World Health Organization (2013) Floods in the WHO European Region: Health effects and their prevention. ISBN: 978 92 890 0011 6.

World Health Organization (2017) Flooding: managing health risks in the WHO European region.

World Health Organization (2018) Chemical releases caused by natural hazard events and disasters – information for public health authorities.

7 Access to Green Open Space

Barton, H. et al. (2002) Shaping neighbourhoods. A guide for health, sustainability and vitality. London: Spon Press.

London Assembly (2017) Park life: ensuring green spaces remain a hit with Londoners.

NHS Healthy Urban Development Unit (2019) Rapid Health Impact Assessment Tool.

World Health Organisation (2015) Connecting global priorities: biodiversity and human health: a state of knowledge review. ISBN: 978 92 4 150853 7

World Health Organization Regional Office for Europe (2021) Green and blue spaces and mental health: new evidence and perspectives for action. Licence: CC BY-NC-SA 3.0 IGO.

8 Access to Blue Open Space

de Bell, S. et al. (2017) The importance of nature in mediating social and psychological benefits associated with visits to freshwater blue space. Landscape and Urban Planning 167, p118-127.

Environment Agency (2020) The social benefits of Blue Space: a systematic review. ISBN: 978-1-84911-461-5.

Grellier, J. et al. (2017) BlueHealth: a study programme protocol for mapping and quantifying the potential benefits to public health and well-being from Europe's blue spaces. BMJ Open.

White, M. P. et al. (2020) Blue space, health and well-being: A narrative overview and synthesis of potential benefits. Environmental Research 191.

White, M. P. et al. (2021) Associations between green/blue spaces and mental health across 18 countries. Scientific Reports 11.

World Health Organization Regional Office for Europe (2021) Green and blue spaces and mental health: new evidence and perspectives for action. Licence: CC BY-NC-SA 3.0 IGO.

9 Access to Active Travel Provision

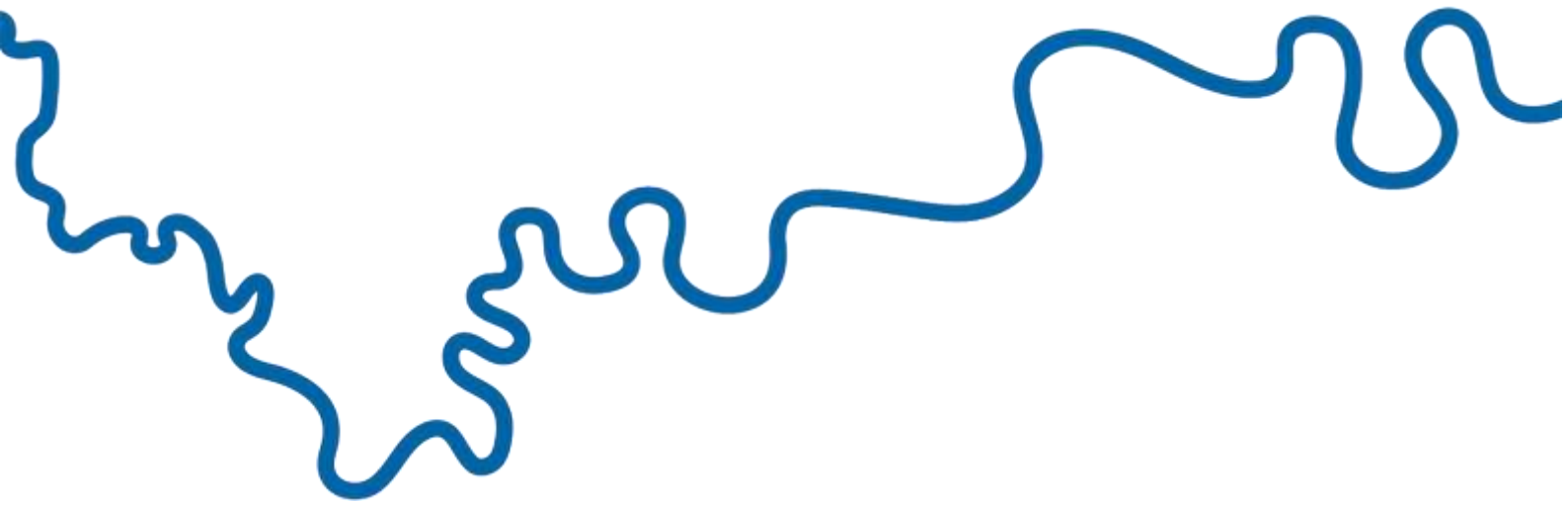
Barton, H. et al. (2002) Shaping neighbourhoods. A guide for health, sustainability and vitality. London: Spon Press.

Marmot, M. et al. (2010) Fair Society, Healthy Lives. The Marmot Review.

NHS Healthy Urban Development Unit (2019) Rapid Health Impact Assessment Tool.

Public Health England (2017) Spatial Planning for Health. An evidence resource for planning and designing healthier places.

van Schalkwyk, M. C. I., & Mindell, J. S. (2018) Current issues in the impacts of transport on health. British Medical Bulletin 125(1), p67-77.



SURREY COUNTY COUNCIL

Environment Agency

The River Thames Scheme represents a new landscape-based approach to creating healthier, more resilient and more sustainable communities by reducing the risk of flooding and creating high quality natural environments.

River Thames
Scheme