

Evidence

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The Mayes Brook restoration in Mayesbrook Park, East London. The additional benefits of river restoration.

Restoration of the Mayes Brook, an urban river, as part of the regeneration of a London park will bring benefits worth up to seven times the cost of the whole regeneration scheme, according to an assessment by the Environment Agency and Queen Mary College. The regeneration of Mayesbrook Park should improve the quality of life and wellbeing of residents in the London Borough of Barking and Dagenham

The proposed restoration of the Mayes Brook in Mayesbrook Park is a good example of an approach that has multiple benefits for improving flood storage (floodplain that could hold water in the event of a flood), biodiversity and adaptation to climate change within a city environment.

The assessment identifies the benefits of the planned river restoration and wider park improvements in terms of their impact on the four categories defined by the UN's 2005 Millennium Ecosystem Assessment definitions of 1. provision of food, water, fuel, 2. regulation of flood risk, air and water quality, 3. recreation, education and tourism, (cultural services) and 4. soil formation, nutrient cycling and habitats for wildlife (support services).

Restoring natural river processes can offer multiple benefits. The approach shows that, from limited resources, the additional benefits to health and wellbeing and economic improvements to deprived areas are substantial. Improvements to the natural environment and wildlife will enhance: the regulation of climate, air quality and flood risk, bring recreation and educational opportunities and provide habitats for wildlife. If the annual value of the restored environment to health, recreation and tourism are pooled, they account for over 95 per cent of the total annual benefits from the Mayesbrook Park regeneration scheme.

The overall economic benefits of the Mayesbrook Park regeneration are likely to be substantial compared to the planned investment. Assessed over 40 years (and with increase in property values assessed over 100 years), the lifetime benefits of the parkland and river restoration should amount to about £27 million. When compared to the estimated costs of the whole Mayesbrook Park regeneration scheme of just under £4 million (including the river restoration works), this produces a benefit-to-cost ratio of £7 for every £1 invested.

The report lists a range of options for further enhancement of the local area, including:

- enhancing the water flow of the park landscape and infrastructure;
- improving water quality at the site using reedbed treatment systems on a backwater of the river, lake inlets and outlets;
- reducing the amount of energy needed during and after the regeneration scheme through energy-efficient building design, installing renewable energy sources and reusing tree and other park trimmings as fuel; and
- enhancing park design to provide more health and educational resources to the local community.

The report applies generic principles of ecosystem services assessment and also provides economic methods and values that may be transferred to other schemes. These will help the Environment Agency and partner organisations in applying this approach in other schemes: improving the environment, optimising public value from investment, and recognising the value of outcomes for the environment, people and business.

It also promotes the case for urban river and parkland habitat regeneration as a low-cost option to enhance not only the natural environment and wildlife but also the wellbeing and prosperity of local communities.

This summary relates to information from the following output:

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