

Economic Aspects of Green Infrastructure: Results from the Pacific Northwest

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Early proponents of Low Impact Development (LID) and other techniques that manage stormwater on site and promote more natural hydrological conditions drew attention to the many potential benefits of these practices. Demonstration projects and case studies followed that described how LID or green infrastructure performed under local conditions. Today, municipalities and jurisdictions throughout the United States promote green infrastructure. Despite this success, questions, doubts, and barriers persist that limit LID adoption. Many stormwater managers, developers and property owners have questions regarding technical and economic aspects of LID.

This presentation will address some of these economic topics, including the range of economic costs and benefits for green infrastructure vs. grey or pipe infrastructure, the ecosystem services and associated economic values that green infrastructure can provide, the perceptions of property owners regarding the extent to which they would take advantage of LID incentives, and the economic considerations of including LID in large-scale restoration initiatives.

The economic information presented will be drawn from analyses conducted in the Pacific Northwest, including an assessment of the costs and benefits of greenroof vs. conventional roof in Portland, Oregon; the impacts of greenstreets in Seattle on property values; a survey of property owners in Portland, Oregon, on their likely participation in a city-sponsored program of incentives that encourage the adoption of green-infrastructure practices; a review of the barriers to LID adoption in jurisdictions throughout the Pacific Northwest and incentives that target these barriers; and evaluating the LID controls recommended as part of the Puget Sound Initiative's restoration efforts.

Ed MacMullan

Ed MacMullan has been a senior economist with ECONorthwest since 1990. He specializes in assessing the economic consequences of public policies, especially those that affect natural resources. His recent stormwater-related work includes conducting a review of the economic literature on the benefits and costs of Low Impact Development (LID) techniques, assessing the economic performance of a greenroof vs. a conventional roof, and collecting information on the barriers to adopting LID and incentives that can help promote LID adoption. Before joining ECONorthwest he studied as a Fulbright Scholar at the University of Strathclyde, Glasgow, Scotland. He currently serves on the Hydrology Subcommittee of the Sustainable Sites Initiative.