

Economics and LID Practices



The economic advantages of Low Impact Development are often not well understood and are deserving of close attention to inform municipal land use decisions.

Economic benefits are being realized through the incorporation of LID-based strategies by municipalities, commercial developers, and others. There are increasing numbers of case studies that demonstrate the substantive economic benefits for commercial development and municipal infrastructure projects—for both construction budgets and project life-cycle costs. These economic benefits are increasingly being observed when using a combination of Gray and Green Infrastructure for stormwater management.

WISE LAND-USE PLANNING DECISIONS

have the potential to ease some of the financial demands driven by regulatory compliance. While individually, green infrastructure elements may add expense to a project, costs savings are often realized on an overall project basis as the need for conventional stormwater infrastructure—such as curbing, catch-basins, piping, ponds, and other controls—is reduced.

ECONOMIC BENEFITS

ASSOCIATED WITH THE USE OF LID:

- Whole project cost savings for new development by reduction of drainage infrastructure
- Land development savings from a reduced amount of disturbance
- Higher property values of 12 to 16 percent
- Reduction in home cooling by 33 to 50 percent from the use of natural vegetation and reduced pavement area.



Utilizing an LID approach that featured porous asphalt and a gravel wetland, a cost-competitive drainage system was designed for a large retail development in Greenland, NH.

Three LID Case Studies that identify the scales at which there are clear economic incentives:

RESIDENTIAL SITE: Boulder Hills

This LID condominium community features a porous asphalt road and incorporated porous pavements and rooftop infiltration systems. The benefits included: improved local permitting, positive exposure for the developers, an 11 percent reduction in the amount of disturbed land and a stormwater management cost savings of 6 percent compared to a conventional design. Although porous asphalt was more costly, cost savings are realized through



COMMERCIAL SITE: Greenland Meadows

This retail shopping center features the largest porous asphalt installation in the Northeast. The 56-acre development includes porous asphalt, landscaping areas, a large gravel wetland and other advanced stormwater management. Costly conventional strategies were avoided, and there was a cost savings of 26 percent for stormwater management.

COMBINED SEWER OVERFLOW

On a larger scale, communities are faced with the challenges of managing their combined sewer overflows to reduce the discharge of untreated sewage into waterways. These large often outdated systems carry price tags in the billions of dollars to store, separate and treat. By combining a gray and green approach the costs and volumes of stormwater are significantly reduced. For example, the city of Portland, Oregon was able to save an estimated \$63M as compared to an estimated \$144M, by considering a green approach, and the city of Chicago, Illinois, was able to divert over 70M gallons of stormwater from their CSO, in one year.



the reduction in drainage piping, erosion control measures, catch basins, and the elimination of curbing, outlet control structures, and stormwater detention ponds.



FORGING THE LINK: Linking the Economic Benefits of Low Impact Development and Community Decisions • www.unh.edu/unhsc/forgingthelink
Chapter 3: Economics and LID Practices

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