

LID For Southwestern Illinois Fact Sheet

Economic Benefits of Low Impact Development

Economic measures of traditional stormwater management focus on design, installation, and maintenance. These variables can be compared to LID projects as well. However, Low Impact Development provides many additional benefits that conventional stormwater techniques simply lack. These additional benefits are realized by citizens of a community, the developer, the municipality and the environment. A recent report by the US EPA completed a cost comparison for twelve LID Best Management Practices (BMP) projects and found *all but one* provided cost savings compared to conventional techniques¹. This shows that site-specific comparisons are in favor of LID even *before* larger-scale economic and environmental benefits are considered.

Design/Construction

Traditional development often creates more impervious surfaces than are necessary. A study conducted by the Center for Watershed Stewardship found average construction cost savings to be: \$1,100 for each parking space eliminated; \$150 per linear foot of road eliminated (for 26' wide road); and \$25 to \$50 per linear foot for narrower road widths². Costs for installing BMPs vary from \$500-\$1000 per acre for residential development and \$1,000 to \$10,000 for commercial sites². Savings are also realized through reduced grading expenses. LID requires minimum disturbance of the soil and topography to avoid compaction and destruction of soil layers and allow maximum infiltration. Up to \$5,000 per acre may be saved for each acre not cleared or controlled for erosion and sediment control².

Operation & Maintenance

LID and traditional stormwater systems both have on-site operation and maintenance (O&M) costs. Only traditional systems have additional off-site O&M costs like stream restoration and water quality issues that municipalities and tax payers must bear. Proper design and construction of BMPs successfully mitigates these off-site costs. Some BMPs are even maintained by other organizations such as homeowners associations, relieving the on-site stormwater maintenance pressure for municipalities. O&M costs for the 10 different types of BMPs at Rock Hill Trails are estimated to be approximately \$2,000 to \$3,500 annually and will be paid by the homeowner's association. This is especially beneficial for the City of Wood River where approximately 80-85% of the city is still functioning with a Combined Sewer System.

References

1. USEPA. *Reducing Stormwater Costs through Low Impact Development (LID) Strategies and Practices*, (Dec 2007 - EPA 841-F-07-006).
2. Chester Co., PA Water Resources Authority. *Watershed Primer Park 4: Land Use Impacts & Watershed Economics*, (1/17/2008).



Economic Benefits

- 💰 Improved aesthetics
- 💰 Expanded recreational opportunities
- 💰 Increased property values due to desired lots with proximity to open space
- 💰 Increased marketing potential and faster sales
- 💰 Flood Damage Costs

Environmental and Economic Benefits

- 💧 Reduced runoff volumes and polluted streams
- 💧 Reduced incidences of combined sewer overflows
- 💧 Protection of downstream water sources
- 💧 Ground water recharge
- 💧 Habitat improvements
- 💧 Reduced illness from recreation such as swimming and fishing

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