

*A case study  
comparison of costs,  
water quality and  
quantity benefits, and  
quality of life.*

# MINNESOTA LOW IMPACT DEVELOPMENT A COMPARISON

## What is LID?



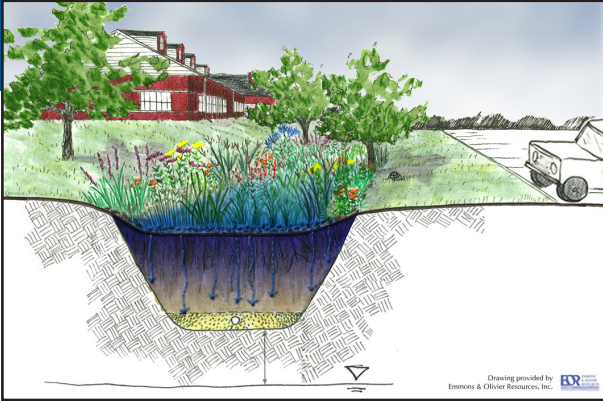
Low Impact Development (LID) is a new way of thinking about stormwater management that is modeled after nature. By using a system of design techniques that store, infiltrate, evaporate and detain runoff, a site's pre-development hydrology can be sustained.

Techniques are based on the premise that stormwater management should not be seen as stormwater disposal. Instead of treating stormwater in large, costly end-of-pipe facilities located at the bottom of drainage areas, LID addresses stormwater through small, cost-effective landscape features located near the source of runoff.



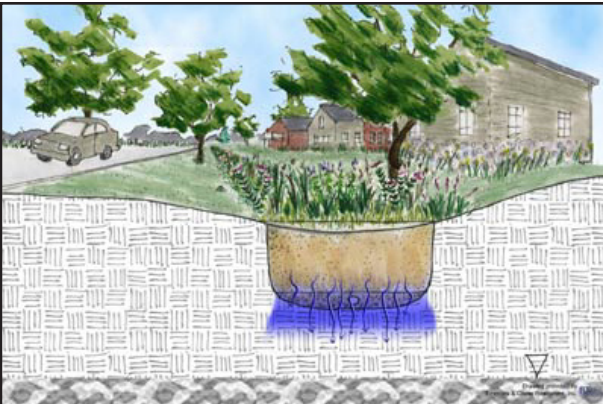
# WHAT IS LID?

## integrated management practices

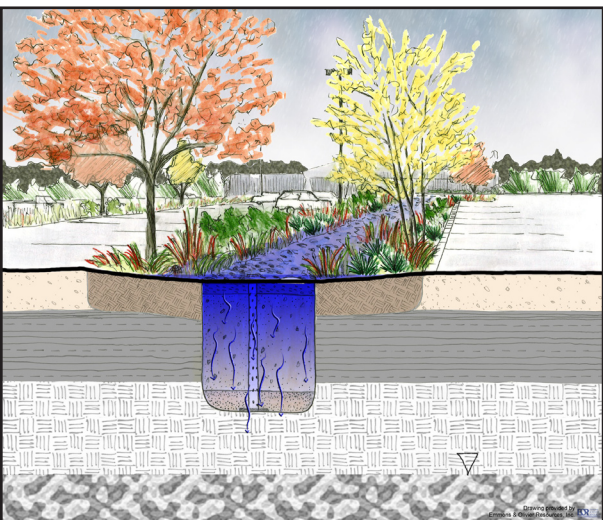


Landscape features, known as Integrated Management Practices (IMPs), are the building blocks of LID. Most components of the urban and suburban environment have the potential to become part of a system, or treatment train, of IMP's including:

- open space - parks, plazas, private campus, etc.
- rooftops
- streetscapes
- parking lots
- sidewalks
- medians
- residential yards



LID is a versatile approach that can be applied equally well to new development, urban retrofits, and redevelopment / revitalization projects. There are several tested and proven templates for the design of IMP's, however, the range of applications and adaptations is limited only to a designers creativity and technical knowledge.



Courtesy of Rice Creek Watershed District

LID Urban Design Tools: <http://www.lid-stormwater.net>

LID Center: <http://www.lid-stormwater.net/intro/background.htm>

The Minnesota Stormwater Manual: <http://www.pca.state.mn.us/water/stormwater/stormwater-manual.html>

# WHAT IS LID?

## costs and benefits



### Benefits of LID

LID can enhance the local environment, protect public health, and improve community livability while providing cost savings to developers and local governments.

Protecting and restoring surface water quality in developed watersheds is increasingly important and difficult within the current paradigm. Relying on impervious reduction and/or conventional detention ponds to address these issues is not feasible, practical or sustainable. LID provides the key in its emphasis on controlling or at least minimizing the changes to the local hydrologic cycle or regime.