The Urban Watershed Continuum: Infrastructure and Ecosystem Function

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The Urban Watershed Continuum

Kaushal and Belt (2012) *Urban Ecosystems* DOI:10.1007/S11252-012-0226-7
Managing Groundwater-Surface Water Connectivity

Kaushal et al. (2008), *Ecol. Applications*
There is longitudinal performance variability across stream reaches

Sivrichi et al. (2011), *Journal of Environmental Monitoring*
Managing Longitudinal and Lateral Transformations

Stream Restoration and Stormwater Retrofit

Phase 1 Early Restoration

Phase 2 Later Restoration

Stormwater Retrofit

Stormwater Retrofit

Courtesy: Newcome
The Urban Watershed Continuum: Evolution of Ecosystem Function Over Time

Kaushal and Belt (2012) Urban Ecosystems
CONCLUSIONS:

• Relationship between infrastructure and ecosystem function across space and time

• Need to consider urban groundwater matrix and longitudinal/lateral inputs to understand variability

• The urban watershed continuum is a “transporter” or “transformer” of pollutants based on infrastructure