



# Calculating Green: A Cost-Benefit Guide for Infrastructure

Effective infrastructure planning requires a comprehensive financial evaluation, analyzing not just initial construction costs but also long-term maintenance and the diverse benefits provided, particularly for green infrastructure solutions like stormwater management.

## THE FINANCIAL FRAMEWORK



### KEY COST CONSIDERATIONS

Evaluate capital costs, long-term operation & maintenance (O&M), and the project's design lifetime.



### ADOPT A LONG-TERM PERSPECTIVE

Use metrics like Net Present Value and Life Cycle Cost for a complete financial picture.



### USE SPECIALIZED ESTIMATION TOOLS

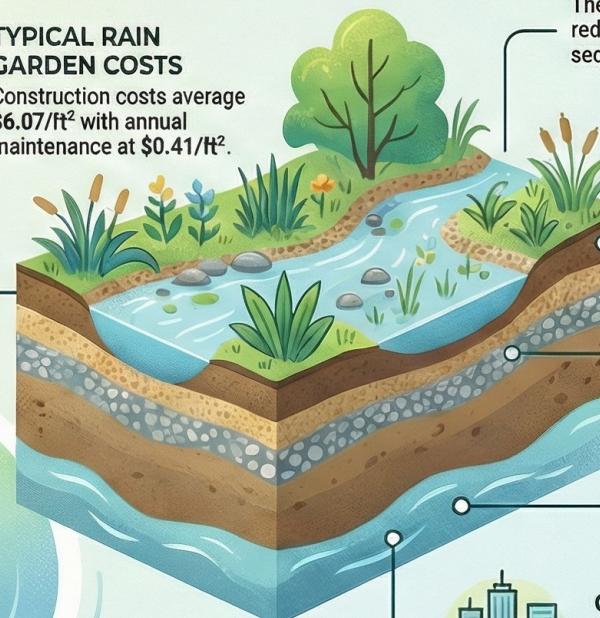
Tools like RSMeans and the Green Values Calculator provide standardized cost and benefit data.

## GREEN INFRASTRUCTURE IN PRACTICE: A RAIN GARDEN CASE STUDY



### TYPICAL RAIN GARDEN COSTS

Construction costs average \$6.07/ft<sup>2</sup> with annual maintenance at \$0.41/ft<sup>2</sup>.



### TREES DELIVER DIRECT FINANCIAL GAINS

They increase property value, reduce air pollution, and sequester CO<sub>2</sub>.



Reduced Energy Use (Trees)  
**\$36** per tree



Compensatory Value of Trees  
**\$275** per tree



Groundwater Replenishment  
**\$86.42** per acre-foot

### GREEN SOLUTIONS REDUCE MUNICIPAL COSTS

Reduced runoff lowers water treatment expenses and helps replenish valuable groundwater.

