



# Building a Sustainable Future:

## Tools & Strategies for Environmental Design

### What is Sustainable Development?

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."



**Case Study: Flood Mitigation in Linden, NJ**  
This project used a three-part strategy to reduce flooding and restore the ecosystem.



**1. Green Infrastructure**  
(rain gardens)



**2. Drainage Recovery**  
(clearing culverts)



**3. Floodplain Restoration**  
("Blue Acres")



**Life Cycle Analysis (LCA)**  
Assesses the full environmental impact of a product or process, from creation to disposal.

### The Digital Toolkit for Sustainable Design



**Geographic Information Systems (GIS)**  
Collects and analyzes geographic data to model and visualize environmental changes and impacts.



**Building Information Modeling (BIM)**  
An intelligent digital model that serves as a central information hub for a project's entire lifecycle.