Green Infrastructure & Flood Management

BLACK EARTH CREEK WATERSHED

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CAPITAL AREA rpc

PRESENTATION CONTENTS

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01

Defining Green Infrastructure

Mimicking nature to handle stormwater at its source

DEFINING GREEN INFRASTRUCTURE

Definition

The range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspirate stormwater and reduce flows to sewer systems or to surface waters. *[Federal Water Pollution Control Act]*

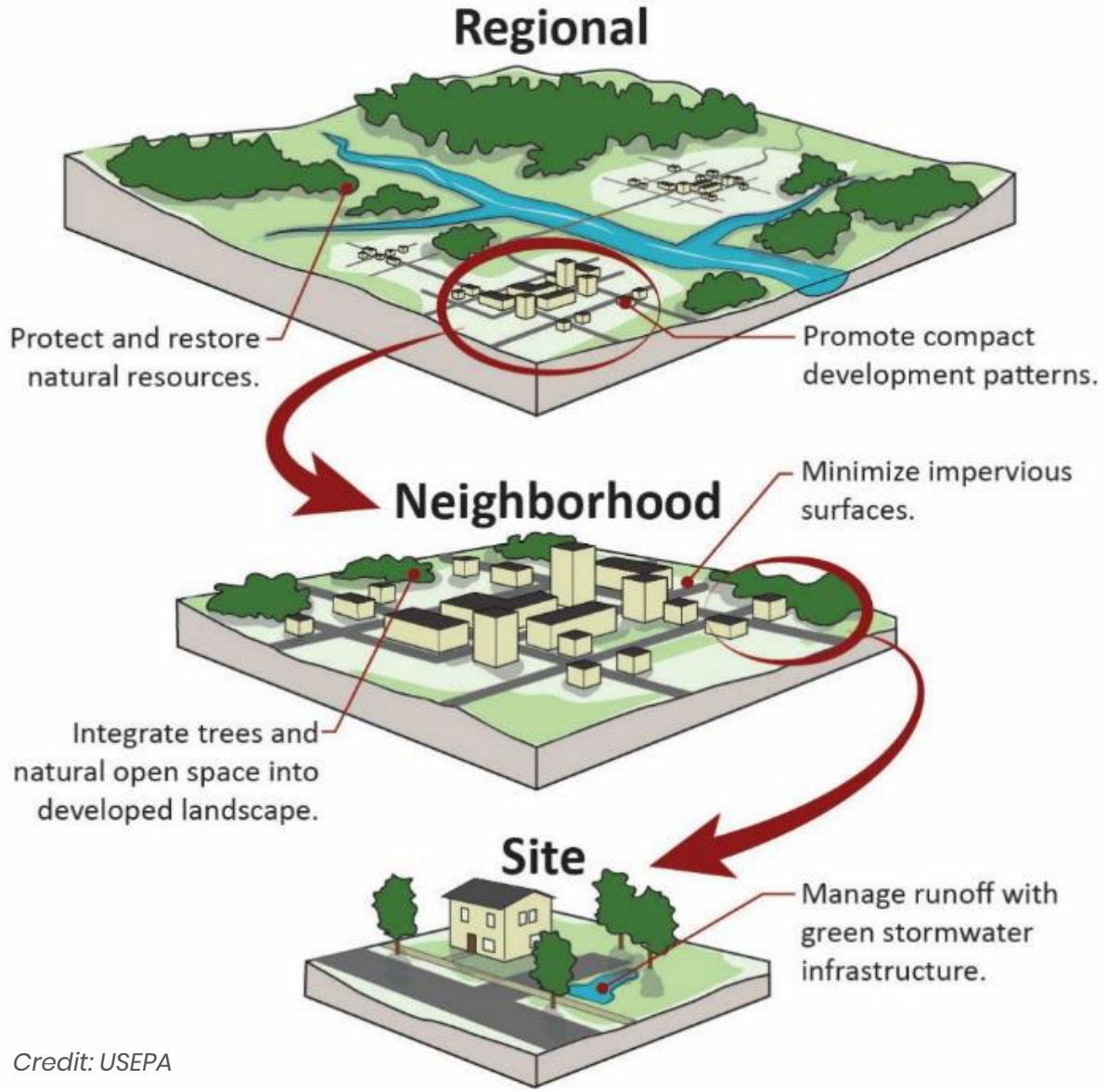
Use of soils and plants to treat, infiltrate, and evapotranspirate rainwater where it falls.

DEFINING GREEN INFRASTRUCTURE

Multiple Scales

Green infrastructure can be implemented at multiple scales, thereby maximizing the benefits

- Regional
- Neighborhood
- Site



Credit: USEPA

DEFINING GREEN INFRASTRUCTURE

Grey Infrastructure Examples

Concrete Swales

Curb & Gutter

Storm Sewer

DEFINING GREEN INFRASTRUCTURE

Small-Scale Examples

Rainfall Harvesting

Rain Gardens

Bioretention Areas

Native Landscaping

Green Walls

Porous Pavers

Planter Boxes

Stormwater Trees

DEFINING GREEN INFRASTRUCTURE

Large-Scale Examples

Green Roofs

Street Sweeping

Wetland Restoration

Canopy Cover

Green Streets

Infiltration Basins

Urban Floodways

Prairie Restoration

02

Benefits of Green Infrastructure

Turning stormwater challenges into opportunities

BENEFITS OF GREEN INFRASTRUCTURE

Costs of Poorly Managed Stormwater

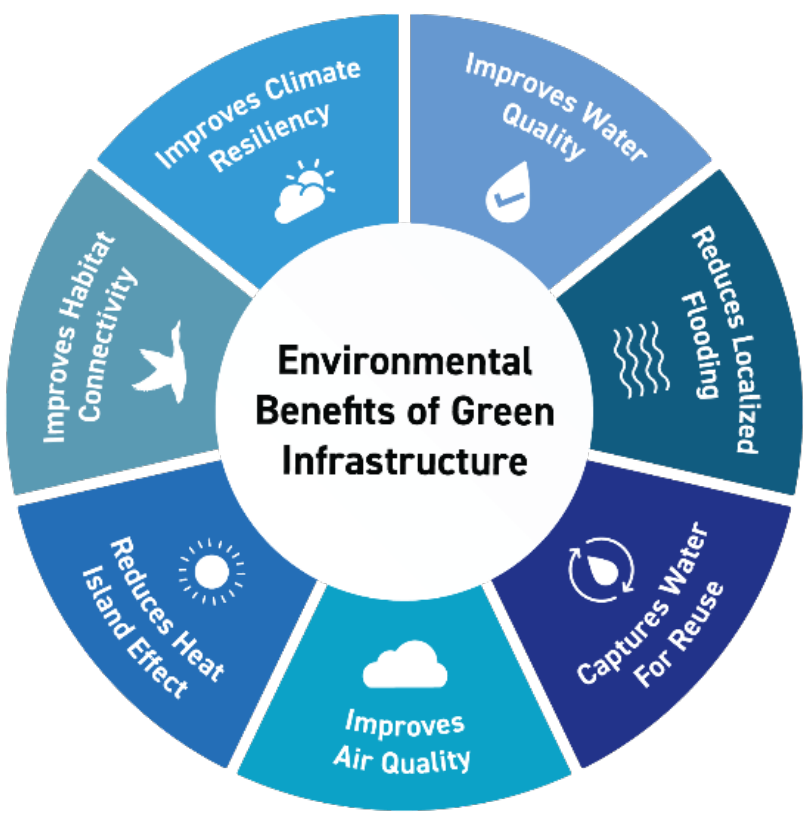
- Polluted surface waters
- Contaminated groundwater
- Increased flooding
- Infrastructure and property damage
- Loss of biodiversity
- Permit non-compliance

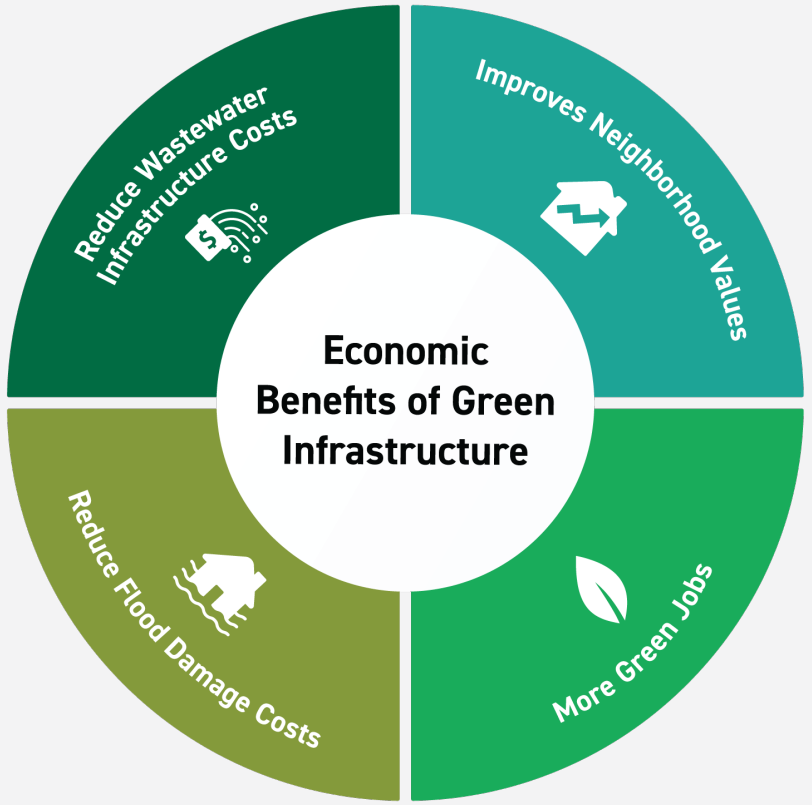
“An ounce of prevention is worth a pound of cure”

-Benjamin Franklin

BENEFITS OF GREEN INFRASTRUCTURE

Triple Bottom Line Benefits





Credit: USEPA

03

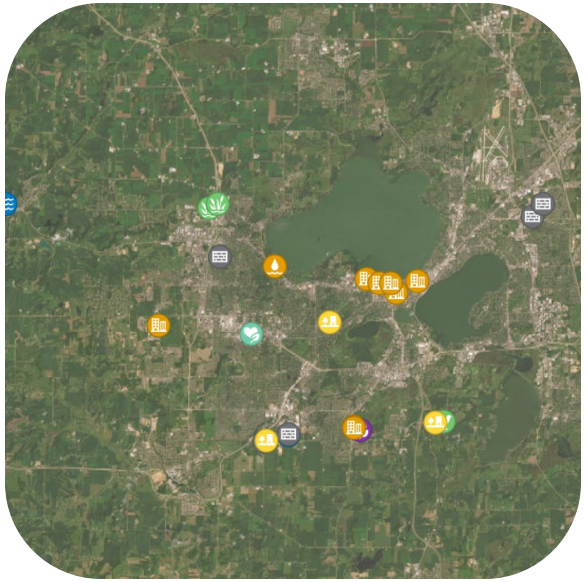
What CARPC is Doing

Promoting Green Infrastructure & Flood Management

WHAT CARPC IS DOING

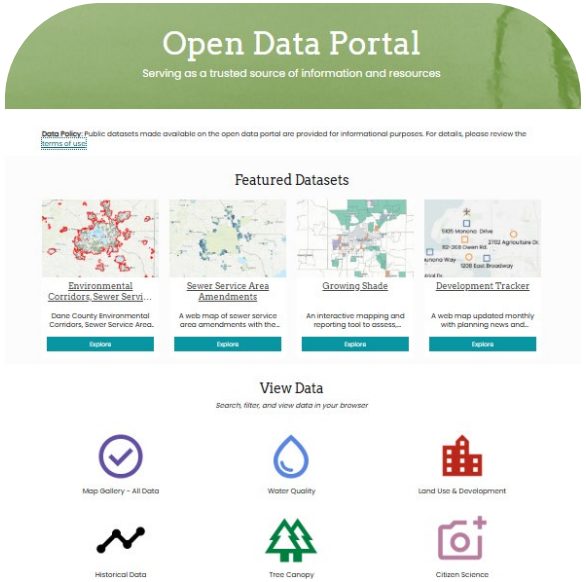
Data & Information Sharing

Urban GI Viewer



Interactive web-based map showcasing real green infrastructure examples in the region

Open Data Portal



Collection of data and mapping resources open to the public and available for download

Tree Canopy

Tools and mapping to assess, preserve, and expand tree canopy in Dane County

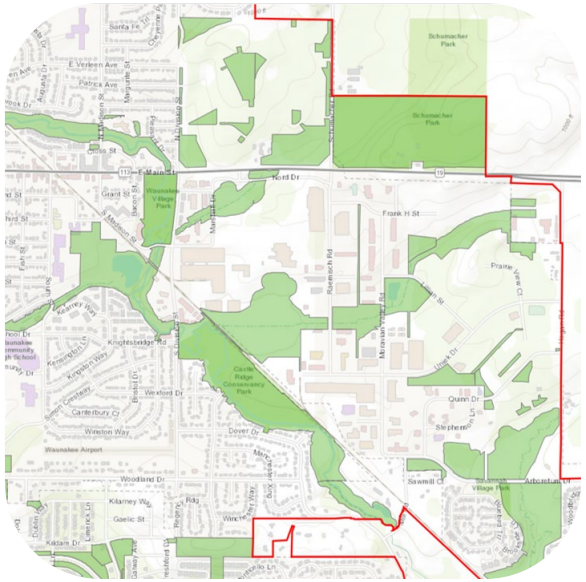
WHAT CARPC IS DOING

Regulatory Role

Dane Co Water Quality Plan

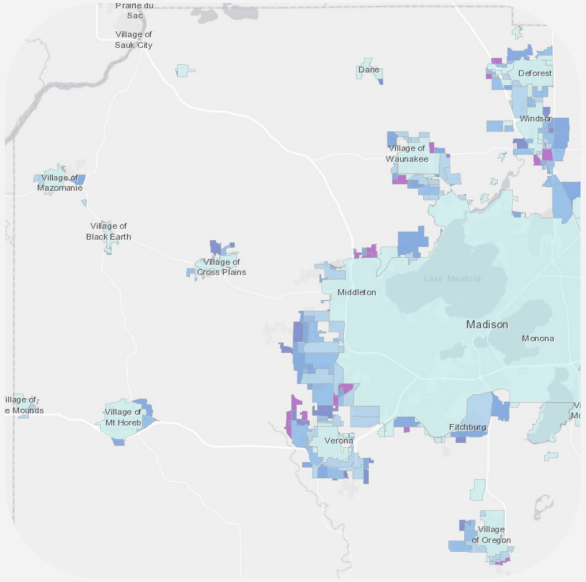
Managing water resources while considering the relationship of water quality and land uses

Environmental Corridors



Protecting sensitive environmental resources; Environmental Corridors Report updated Feb 2025

Sewer Service Area Planning



Identifying lands most suitable for development; protecting against adverse water quality impacts

WHAT CARPC IS DOING

Projects

Stream Crossing Inventory

Assessing and prioritizing critical infrastructure upgrades to improve flood resiliency

Green Infrastructure Design Guide

A guide for choosing and implementing best practices using green infrastructure in an urban corridor

Black Earth Creek GI Plan

A Plan for flood protection and water quality, recreational, economic, and ecological benefits

Questions?

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