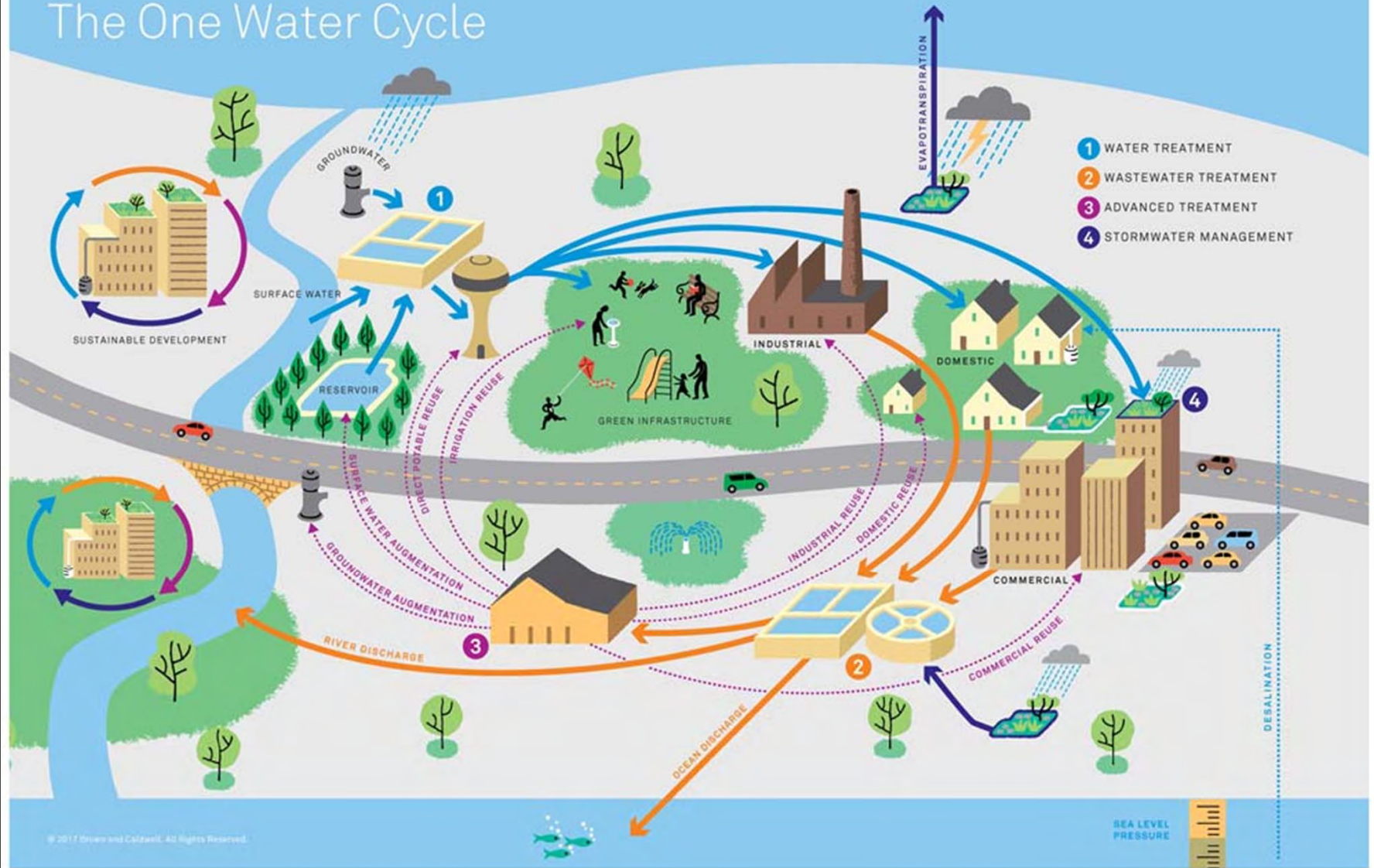
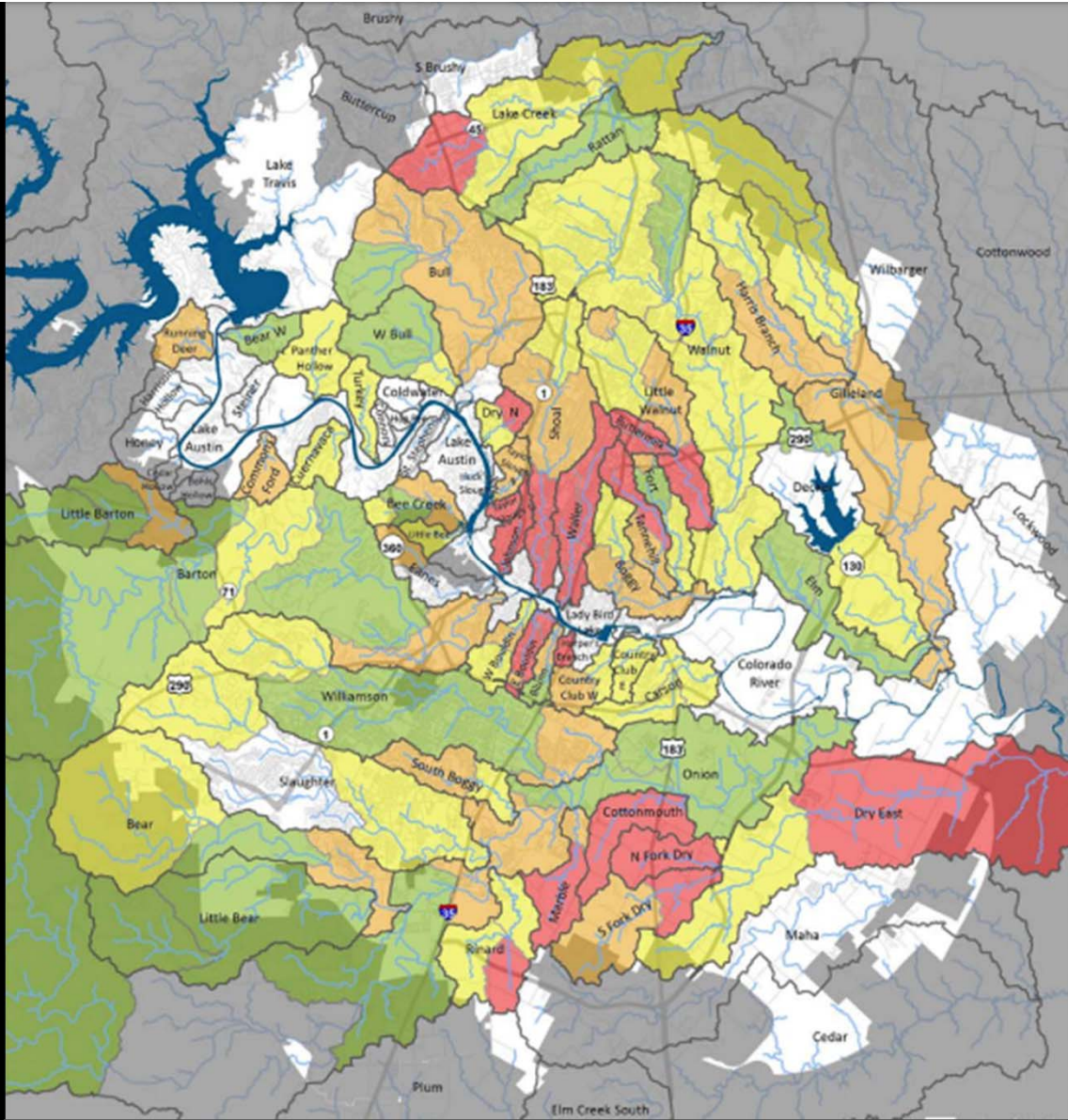


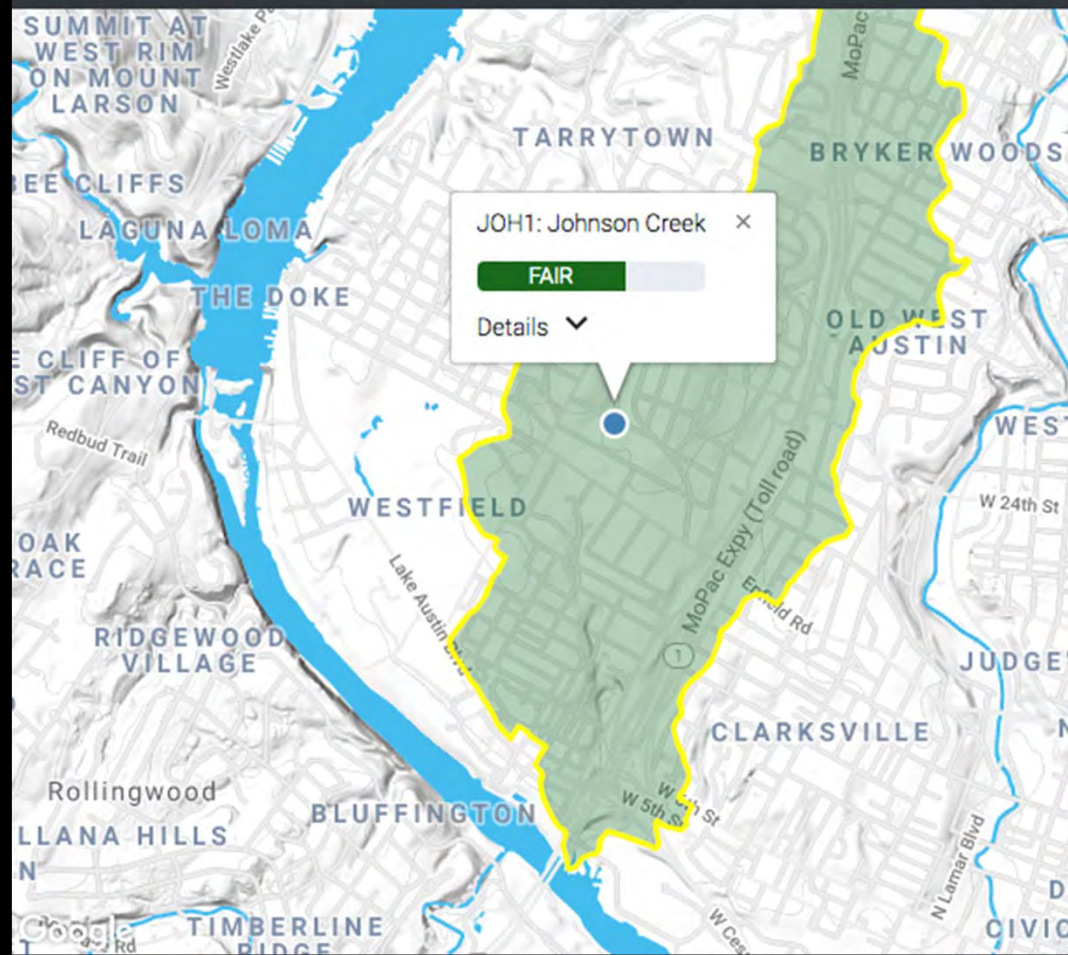
Introduction to Green Stormwater Infrastructure

by Paige Oliverio

The One Water Cycle









Gray

Green/Gray

Green

**Roads,
Sewer/Water Pipelines**

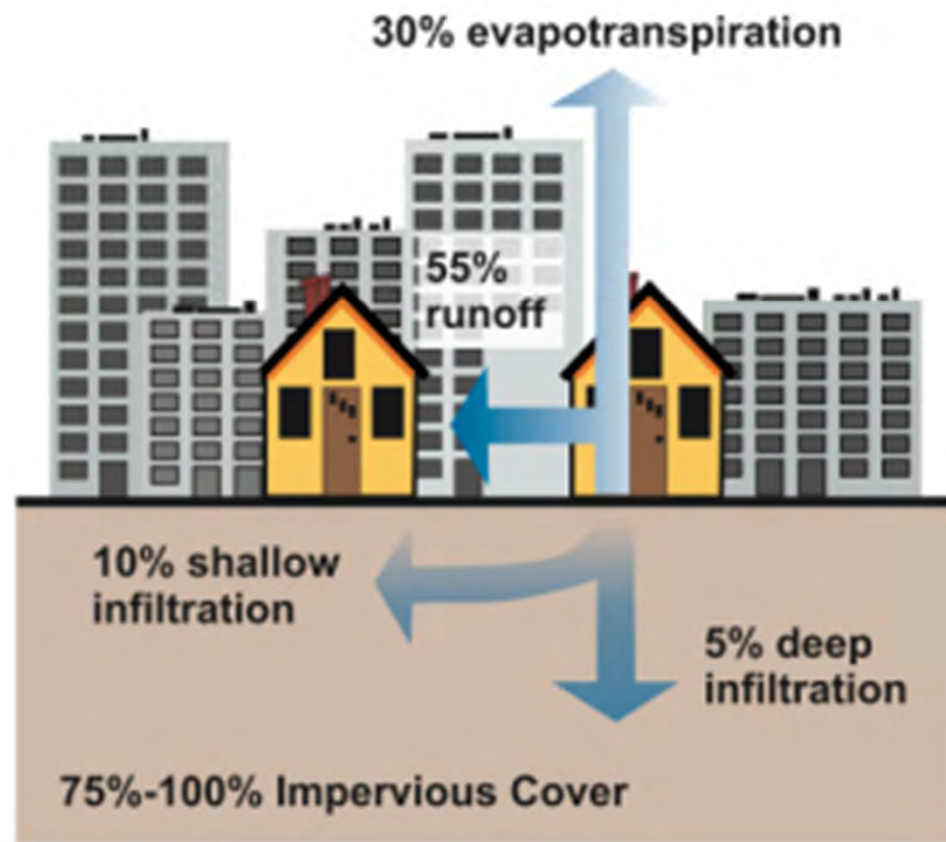
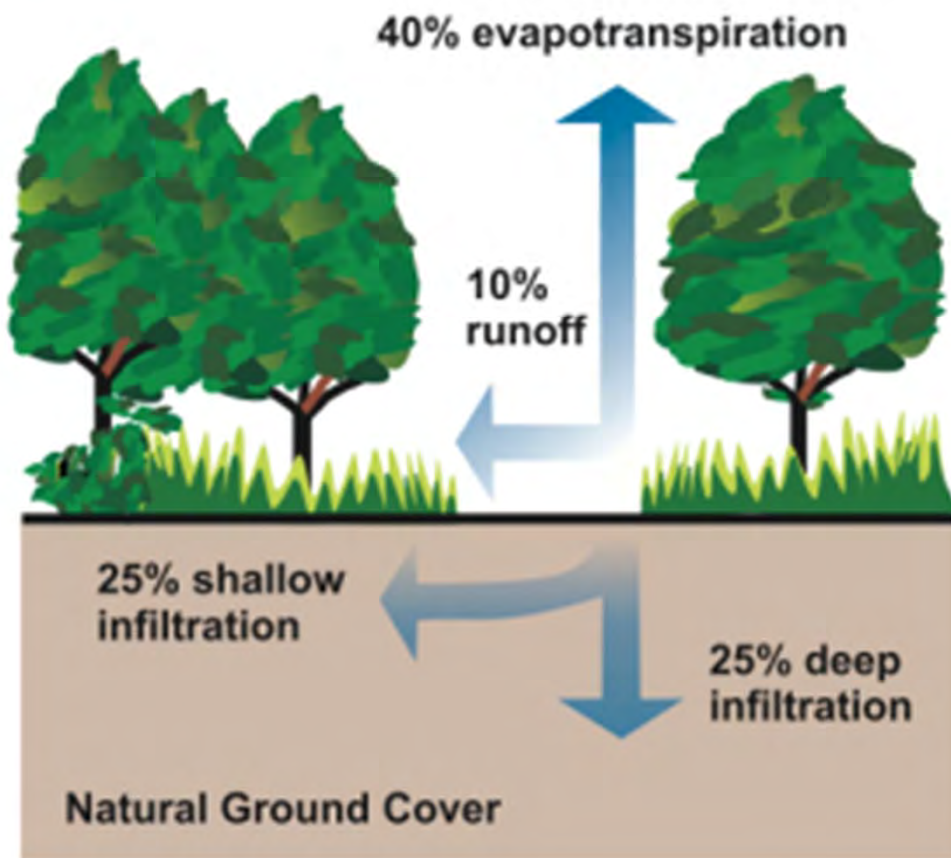
Centralized treatment
Collects and channels runoff
High impact

**Detention Ponds
and Holding Tanks**

Slow release into sewer system
Volume peak rate reduction

**Networks of Wetlands/
Floodplain Restoration**

Allows infiltration
Evaporation
Transpiration
Enhanced water quality
Reduced erosion/sedimentation
Restoration
Minimal impact



Relationship between impervious cover and surface runoff. Impervious cover in a watershed results in increased surface runoff. As little as 10 percent impervious cover in a watershed can result in stream degradation.

Green Infrastructure

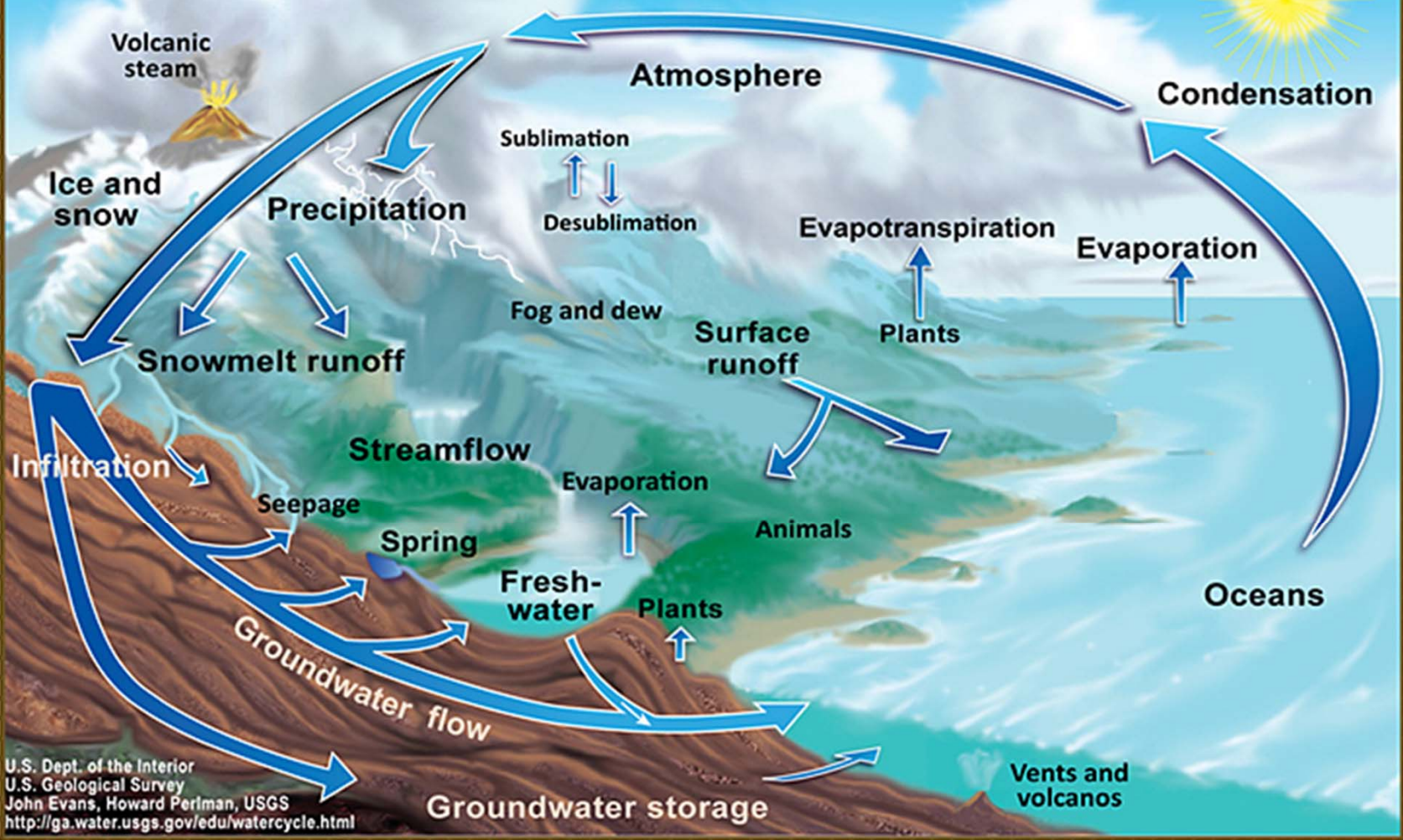


Gray Infrastructure





The Water Cycle



Urban Landscape Water Use in Texas

• A SPECIAL REPORT BY THE TEXAS WATER RESOURCES INSTITUTE


Urban-municipal use is the second largest category of water use in Texas. Within this use category, lawn and landscape water use is a significant, but largely unmeasured, component. Landscapes are important components of urban environments and provide an array of economic, environmental, human health and social benefits.

A recent report in the Texas Water Journal, summarized in this publication, evaluated urban landscapes in Texas and associated water use and offered strategies and practices that can significantly reduce water use for urban landscape irrigation.

Want to learn more about Texas water issues?


Explore the Texas Living Waters Project areas of impacts below.

For a deeper dive into the issues, read our [Texas water issue papers and publications](#).




Tomorrow is underground.

GROUNDWATER



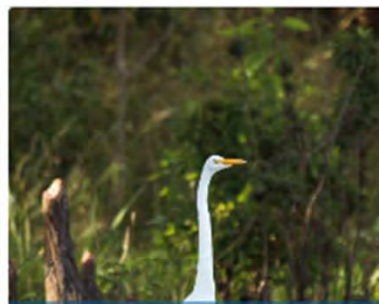
Raise your voice. Get involved.

STATE WATER PLAN




Drought happens. Buckle up.

DROUGHT



We. Must. Conserve. Water.

WATER CONSERVATION



Keep Texas rivers flowing.

ENVIRONMENTAL FLOWS

WATER FORWARD



Austin is one of the fastest growing cities in the country. With a rapidly growing city and a changing climate, Austin Water is working with other city departments, a Council-appointed citizen Task Force, and the community to develop a water plan for the next century.

The goal of the Water Forward plan is to ensure a diversified, sustainable, and resilient water future, with strong emphasis on water conservation. This plan will consider a range of strategies such as water conservation, water reuse, aquifer storage and recovery (ASR), and others.



AWE Releases State Scorecard Regional Supplement for the Colorado River Basin

AWE's newly released report, "State-Level Water Efficiency and Conservation Laws in the Colorado River Basin" takes a closer look at the results of the 2017 AWE report, "The Water Efficiency and Conservation State Scorecard: An Assessment of Laws" for the seven Colorado River Basin states of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming. The report is available on AWE's [Our Work](#) page.



Calendar of Events

- 1/31/2019 Central Texas Water Conservation Symposium
- 2/4/2019 2019 California Irrigation Institute Conference
- 2/14/2019 AWE Research Launch & Panel Discussion - From Thirsty to Sustainable: Transforming Landscapes to Meet Our Water Challenges
- 2/19/2019 2019 Pacific Water Conference
- 2/28/2019 Gulf Coast Water Conservation Symposium

President Signs America's Water Infrastructure Act, Authorizing EPA WaterSense

How Much Water Do You Use?

 [Click Here to Learn More](#)


ADVANCING
ONE WATER
IN TEXAS



Rachel Cardone and Carol Howe
February 2018

PRESENTED BY





NORTH URBAN WATERSHEDS

Shoal Creek | Waller Creek | Johnson Creek | Lady Bird Lake

Watershed Profile - December 27, 2016



Austin circa 1887 (Source: Amon Carter Museum)



Austin 2016 (Source: Google Earth, Landsat)



This profile is part of a series of publications that characterize Austin's watersheds. Using the **Watershed Protection Department's** three missions as a framework, the profile looks at creek and localized flooding, erosion, and water quality problems in four central Austin watersheds. The profile also discusses past, current, and





Rainfall Collection Equation

Total Harvested Rainwater = Rainfall Depth (in) x Catchment Area (ft²) x 0.623 x System % Efficiency



green infrastructure toolkit

GEORGETOWN CLIMATE CENTER
A Leading Resource for State and Federal Policy



© 2018 Pam Penick





inhabitat

















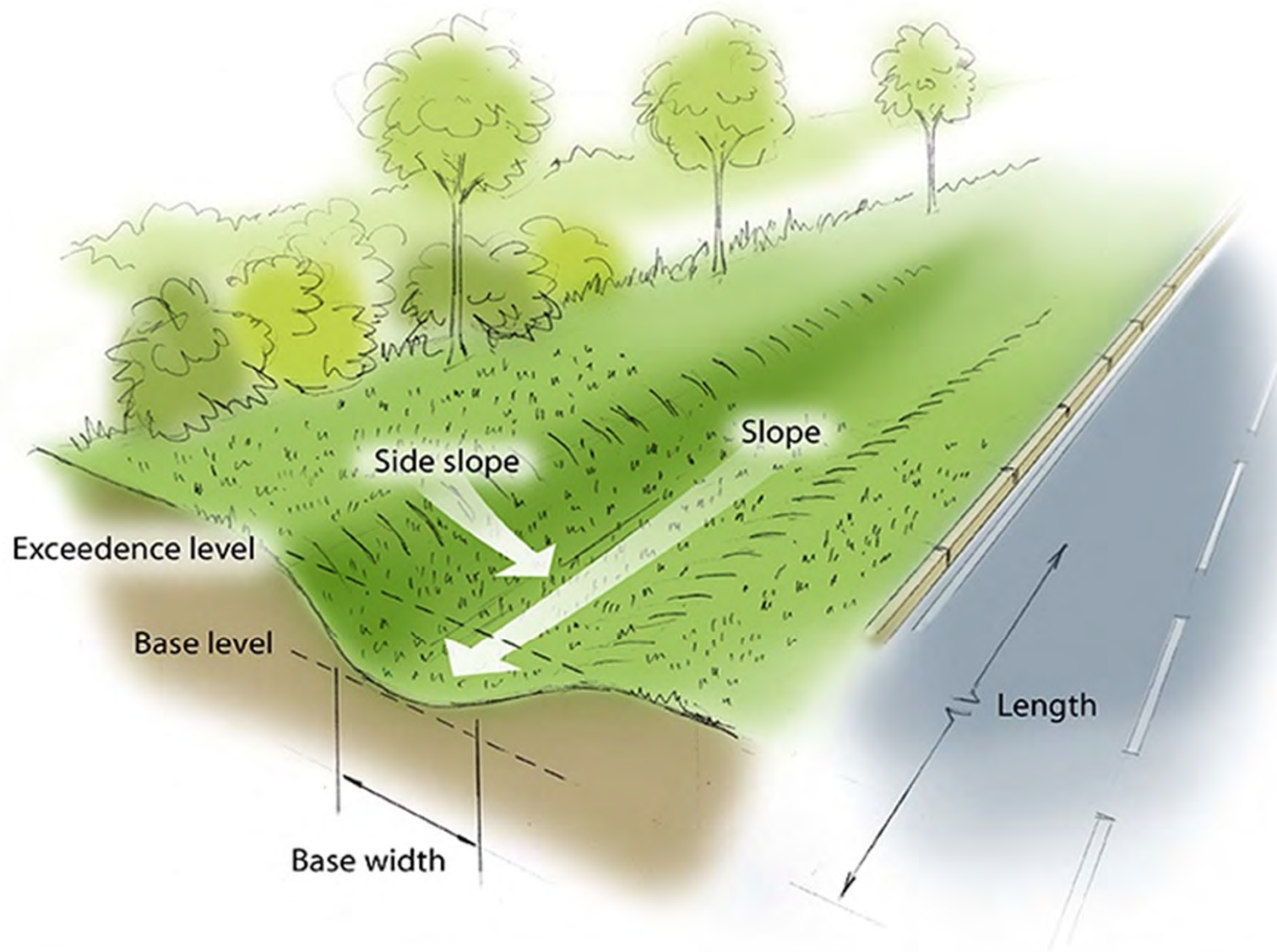










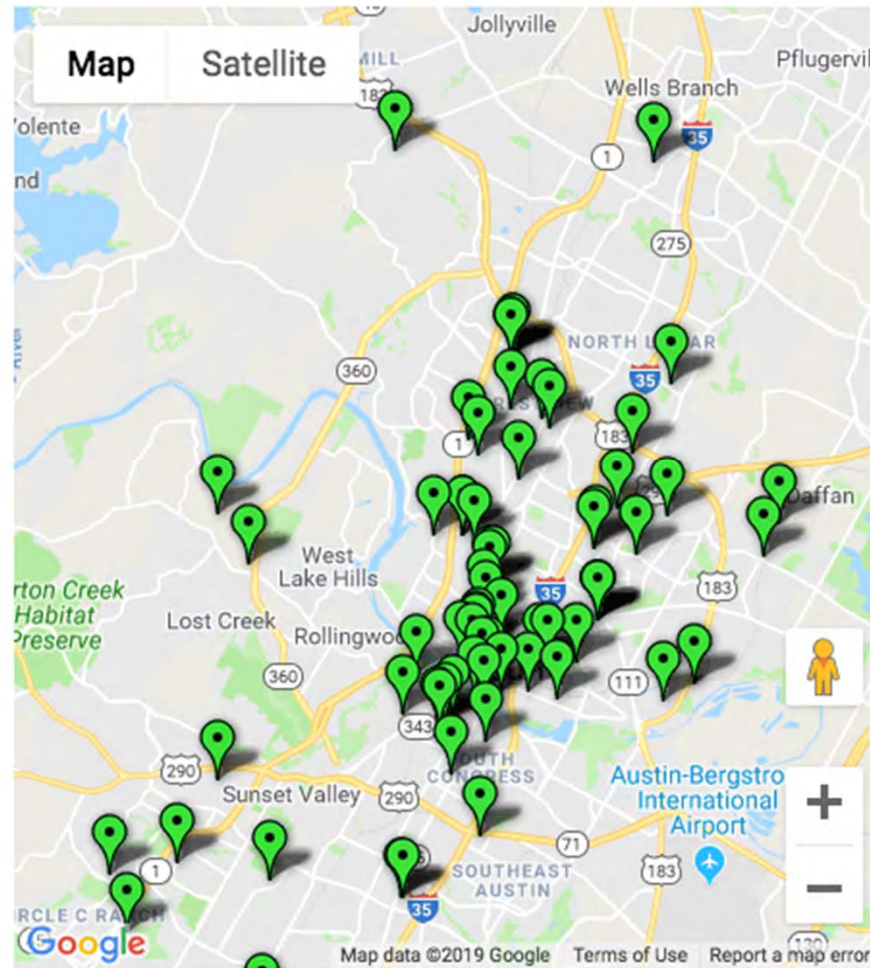






© www.HarvestingRainwater.com





Rainscapes & Cisterns 1/24/19 Zilker Botanical Garden

9:00-9:45	Introduction to Green Stormwater Infrastructure	Paige Oliveira, Urban Patchwork
9:45-10:30	Rain Gardens - Design & Installation	Tom Franke, WPD
10:30-10:45	Break	
10:45-11:30	Rain Garden - Plants & Maintenance	Susan Kerek & Darcy Miller, WPD
11:30-12:00	Rainwater Harvesting	Billy Kuffen
12:00-12:10	Lunch	
	1. Rainwater	1. Resale
	2. Cisterns	2. Maryn Wagner
	3. Drainage Issues	3. Paige Oliveira
12:10-12:30	4. Winter Plant ID	4. Meredith Jiles
	High Efficiency Irrigation and Holistic Water Management	Wendy Dornell, Innovative Irrigation
12:30-12:45		
12:45-1:00	Drainage Utility Fee & Discount Program	Kelsey Schilly WPD
	Grow Your Business - City Resales & Free Staff	
1:00-4:00 p.m	Increasing demand for GSI, BK&CP	Membership files

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