THE MEADOWS CENTER FOR WATER AND THE No natural resource is more important to our future than Water. Water is

what we do. RESEARCH | STEWARDSHIP | SERVICE | EDUCATION



THE MEADOWS CENTER FOR WATER AND THE ENVIRONMENT

TEXAS STATE UNIVERSITY

Dr. Robert Mace Executive Director

Nick Dornak Director of Watershed Services <u>nickdornak@txstate.edu</u> 512-245-6697

No natural resource is more important to our future than Water. Water is what we do.

RESEARCH | STEWARDSHIP | SERVICE | EDUCATION | SERVICE



TFXAS STATE UNIVERSITY

Example 1 CYPRESS CREEK CREEK Let's keep it clean, clear & flowing

The Meadows Center for Water and the Environment 201 San Marcos Springs Drive | San Marcos, TX. 78666 Ph. 512.249.9200 | meadowscenter@txstate.edu

Cypress Creek Watershed Goals

- Activities to prevent pollution, protect flow
- Preserve water quality through local permitting, ordinances
- Improve tools for decision makers to calculate effects of land use changes on water quality
- Site-specific LID/Green Infrastructure demonstration sites
- Outreach and education efforts
- Monitoring and modeling water quality changes

Cypress Creek Watershed Plan Components

- Structural BMPs
- Non-structural BMPs (incentives, regulations, education)
- Source water protection
- Land management, conservation
- Research
- Monitoring



GBRA - Clean Rivers Program

- GBRA partners with TCEQ to administer the Clean Rivers Program (CRP) for the Guadalupe River and Lavaca-Guadalupe Coastal Basins.
- The Wimberley Valley Watershed Association (WVWA) began funding the program with help from the City of Wimberley in 2003. The program contributes monitoring data collected under the Guadalupe Basin CRP quality assurance project plan (QAPP) from the Blanco River and Cypress Creek watersheds.
- TCEQ and USEPA quality assure data and program efforts.
- Meadows Center staff (trained by GBRA and listed in the QAPP collects data. GBRA laboratory analyzes data/samples.
- TCEQ uses the data for decision making purposes, water quality impairment listings
- Data has been collected on many sites since 1998

https://www.tceq.texas.gov/waterquality/clean-rivers

Cypress Creek Updates 2020

- Virtual Tour of Cypress BMPs:
 https://www.cypresscreekproject.net/different-bmps-1
- Water Quality Ordinances for Wimberley and Woodcreek
- Jacob's Well Groundwater Management Zone
- The First One Water School in Texas!
- Outreach and education efforts
- One Water Library Expansion

Revised Water Quality Ordinances for Wimberley and Woodcreek

"the lower one-third of the watershed in a full-build out 2040 condition will essentially experience the same pollutant loads as the existing condition"

- Water quality best management practices that must remove at least 80% of the increase in TSS load through the TCEQ Edwards Aquifer Protection program or city requirements;
- Water quality measure inspection and maintenance requirements that are enforced by the local government to ensure pollutant treatment performance;
- Creek buffer zones, that function similarly to filter strips as they are designed so that upstream runoff is converted to sheet flow. Filter strips are noted as providing 85% TSS management;
- Water quality education materials and workshops that can reduce the use of landscape chemicals, and
- Construction sediment controls that significantly reduce sediment loads during the construction period.

Jacob's Well GMZ

12

Getaway Austin

Jacob's Well Groundwater Management Zone

ant Sha

Prima Vista

Serenity Farmhouse Inn

"I believe the intent of the JWGMZ is not only to protect the flow of Cypress Creek, but also to protect the resources and property of the citizens that reside in the Wimberley Valley. For this reason, your rules should provide safeguards to over-pumping in this area in order to protect all of those that currently rely on this resource and those who plan on using this resource responsibly in the future." Hays County Commissioner Precinct 3, Lon Shell



Blue Hole Primary School The first One Water School in Texas!

Built with STEM principles to minimize water use, safely reuse, and protect community water supplies.



2020 Texas Water Development Board Rain Catcher Award Winner!!!



OneWaterSchool_Campus_wvwa

OneWaterSchool_GreywaterPlumbing_wvwa



OneWaterSchool_PerviousPavers_wvwa



OneWaterSchool_RainwaterACCondensateCollec tion_wvwa



OneWaterSchool_IrrigationBeneficialReuse_wvw a



OneWaterSchool_IrrigationBeneficialReuse2_wv wa



OneWaterSchool_RainwaterACCondensateCollec tion2_wvwa



OneWaterSchool_RainwaterTank_wvwa

Meadows MOU with the Wimberley Village Library

- Rainwater harvesting
 - Toilet flushing and landscape watering
 - Stormwater management
 - NPS pollutant reduction
- HVAC condensate collection
 - Toilet flushing and landscape watering
 - Energy efficiency
- Permeable pavers and raingardens
 - Stormwater management
 - NPS pollutant reduction
 - Aquifer recharge
 - Urban heat island mitigation
- Educational resources

"The Wimberley Village Library community – trustees, staff, Friends and Foundation – welcomes and enthusiastically embraces this opportunity to put into practice the essential principles of the One Water approach to design and construction. We look forward to providing a center for information and programs to further knowledge and understanding of the critical role of water resources in western Hays County," Dell Hood, President Board of Trustees -Wimberley Village Library District.

THANK YOU

Explore Spring Lake | Join Us | Partner Up | Sponsor a Project | Put Us to Work

twitter **b** facebook

book You Tube

🖸 Instagram



THE MEADOWS CENTER FOR WATER AND THE ENVIRONMENT

TFXAS STATE IINIVERSITY

The Meadows Center for Water and the Environment 201 San Marcos Springs Drive | San Marcos, TX. 78666 Ph. 512.249.9200 | <u>meadowscenter@txstate.edu</u> EXPLORE SPRING LAKE.ORG