



CYPRESS CREEK

Let's keep it **clean**, **clear** & flowing

Cypress Creek Project Watershed Protection Plan

CCP WPP Project Summary



HISTORY OF THE CYPRESS CREEK WATERSHED

Cypress Creek and Jacob's Well are the lifeblood for the Wimberley Valley and the people who live there. For generations, residents have had a long history of being **responsible natural resource stewards**. These natural treasures are the inspiration for art and culture, and are inextricably linked to economic health. People come from far and wide to jump into Jacob's Well, swim in Blue Hole, and experience the charms of Wimberley and Woodcreek.

It is no wonder that the region is experiencing a new set of demands as the urban-development envelope expands into previously minimally developed areas. Hays County is one of the **fastest growing counties** in the country and is listed as the 5th fastest growing county in the United States. Much of this growth will occur within the Cypress Creek watershed and adjacent aquifer recharge and contributing zones. Such rapid growth in areas reliant upon the Trinity Aquifer will put untold strain upon groundwater resources.

In July 2000, **prolonged drought** caused Jacob's Well to cease flowing for the first time in recorded history, hereby degrading fish and wildlife habitat, water quality, and the economy. Flows ceased again in 2008 and low flow conditions currently persist. More groundwater is being used than is being replenished through natural means. If this practice continues, water costs will rise, water quality could decline and people could run out of water. In addition to frequent drought, this region has also experienced **dramatic flooding**, resulting in millions of dollars in damages, lost revenues and other costs. Although water quality in Cypress Creek is currently meeting water quality standards, future projections reveal **significant water quality impairments if nothing is done now**.

The community supports future efforts to ensure the continued flow, water quantity and quality of Cypress Creek, and its spring-fed source, Jacob's Well. Research shows residents are willing to pay \$79 to \$94 per person per year to ensure the continued flow, water quantity and quality of Cypress Creek, its spring-fed source, Jacob's Well, and nearby recreational areas, such as Blue Hole. There is also a strong interest in mitigating the effects of expected future flooding.

The Cypress Creek Watershed is under increasing demand from rapid population growth. There are over 70 approved subdivisions in the watershed and residents will all depend on groundwater for municipal supplies.

In 2010, revenue from the Wimberley tourism and hospitality sectors totaled more than \$65M and \$391K in sales tax revenues.

THE FUTURE OF THE CYPRESS CREEK WATERSHED

Unless regional decision-makers have science-based tools and strategies to inform urban planning for future development and population growth, Cypress Creek's water availability will be less certain, water quality will be increasingly impaired for pathogens, nutrients, sedimentation, siltation, organic enrichment, and depressed oxygen levels and the effects of flooding will continue to worsen.

The community-approved **Cypress Creek Watershed Protection Plan (WPP)** is an important tool that can be used by the region's leaders to help manage the Cypress Creek Watershed. The plan has broad-range support among key governmental entities and local non-governmental organizations, has its basis in science, community involvement, and is adaptive in nature. The WPP includes a suite of best management practices (BMPs) to mitigate current and future potential flow and aquifer levels, (quantity), water quality impairments and flooding. Some BMPs were prioritized for immediate implementation, while others will be implemented over a number of years, as needed.

What does implementing the Plan look like?

- Monitoring and data collection will track water quality and increase understanding about nonpoint source contributions to Cypress Creek
- Building upon existing models will increase understanding to better estimate peak flows for individual drainage areas
- Creating a comprehensive storm-water management plan to mitigate stormwater and flooding impacts
- Installing site specific BMPs as demonstration projects including preventative, storm-water and low impact development (LID) measures (storm-water controls, rainwater capture, rain gardens, and bio-filtration systems)
- Completing educational materials and resources for government officials, citizens and developers
- Expanding local education and outreach activities
- Improving the reliability and enhancing the capability of the Cypress Creek Decision Support System to calculate potential impacts of site scale development
- Reviewing existing ordinances to assist the cities and county in quantifying their effectiveness of maintaining water quality
- Implementing a process to fast track development proposals incorporating LID and green infrastructure

GOALS OF CYPRESS WPP IMPLEMENTATION

To implement activities to reduce and prevent nonpoint source pollution (NPS) and protect flow

To increase capacity to preserve water quality, flow and groundwater supplies through local permitting, ordinances, and Best Management Practices (BMPs)

To increase accuracy of tools for decision makers

To monitor water quality and model projected water quality changes

To conduct outreach and education efforts across the watershed

To coordinate site-specific retrofits for Low-Impact Development (LID) and provide these as community education projects and demonstration sites for watershed management

To improve understanding of relationship between groundwater, surface water, recharge, and vulnerability to impacts on water quality from NPS

To mitigate effects of flooding

