



OUR VERY SURVIVAL DEPENDS ON WATER, YET MOST OF US TAKE IT FOR GRANTED. IN SAN ANTONIO, MOST OF OUR FRESH WATER COMES FROM THE EDWARDS AQUIFER, ONE OF THE WORLD'S GREAT KARST SYSTEMS. THIS TYPE OF LANDSCAPE HELPS RAINWATER FIND ITS WAY UNDERGROUND WHERE IT CAN LATER EMERGE FROM SPRINGS OR MANMADE WELLS FOR US TO USE. GOVERNMENT CANYON STATE NATURAL AREA HELPS PROTECT THOUSANDS OF ACRES OF KARST, RAIN'S ENTRYWAY TO THE AQUIFER AND EVENTUALLY TO YOUR HOME FAUCET. THOUGH THIS SYSTEM OF FRESHWATER HAS BEEN CONSTANT AND RELIABLE THROUGHOUT HISTORY, ITS FUTURE IS UNCLEAR.



## WE CAN ALL MAKE A DIFFERENCE

Conservation and stewardship of natural resources is the daily focus of Government Canyon, and we encourage you to adopt a similar ethic into your daily life.

Government Canyon protects a portion of recharge zone and habitat for endangered species, including the Golden-cheeked Warbler and several cave invertebrates. Nearly 1,100 acres of warbler habitat is closed to all access for six months of the year, to protect and shelter this songbird during its breeding and nesting season.

We collect and use rainwater for our landscaping and for our toilets, instead of using tap water. The insulation in our buildings is made of shredded, recycled blue jeans. Large, overhanging eaves help naturally cool the inside rooms. Our facilities are not placed over the recharge zone. The wood planks of the boardwalk are from sustainable hardwood forests. Solar panels power our cistern's pumps and the aerator fans inside each of our composting toilets.

Government Canyon and its partners are restoring hundreds of acres of our Frontcountry to pre-agricultural conditions using selective brush removal and prescribed fire. The site actively practices the Leave No Trace ethic, teaching visitors how to minimize their impact when outdoors.

### HERE'S WHAT YOU CAN DO:

- ✦ Learn to use less water whenever you turn on the tap.
- ✦ Collect and use rainwater.
- ✦ Use native plants for landscaping - they need less water than others.
- ✦ Use solar panels to power pumps, water heaters and ranch gates, among many other things.
- ✦ Reduce your garbage and reuse or recycle more.
- ✦ Volunteer at GCSNA and help others become aquifer friendly.

Visit our Exhibit Hall and Recharge Store to discover more ways that you can be a good steward of the Edwards Aquifer and its surrounding natural resources.

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*Interpretive Guide to:*

# GOVERNMENT CANYON

## STATE NATURAL AREA





## RECHARGING THE AQUIFER THROUGH KARST

The Edwards is a karst aquifer, one of the nation's most unique groundwater systems and the primary source of water for millions in central Texas. "Karst" refers to dissolved limestone that forms interconnected conduits and cavities allowing for the movement and storage of water underground.



To understand this system, visualize the journey water takes as it passes through three of the aquifer's zones.

The drainage zone catches rain falling on the canyons and plateaus of the Texas Hill Country. The captured water drains downhill to the recharge zone where karst features such as cracks, sinkholes and caves swallow vast quantities of water allowing for rapid replenishment, called recharge. Underground water then flows into the artesian zone through a complex series of connected spaces, ranging from microscopic pores to large caverns. Here it is confined and stored until finally discharging as natural spring flow or removed through manmade wells.

Government Canyon State Natural Area contains and protects portions of all three of these zones, including over 7,500 acres of the aquifer's recharge zone.

People in this region have always depended upon water from the Edwards Aquifer, yet urbanization over the drainage and recharge zones now threatens the aquifer's water quality and quantity.

**Karst features of the recharge zone do not filter the water, making the aquifer highly susceptible to pollution and contamination.**



## CONTINUED CONNECTIONS OF WATER AND PEOPLE



Water is the common thread connecting the many pieces of Government Canyon's history, linking the human, plant, animal and geologic stories of this land in a way that says, "it's all about water."

Reliable freshwater springs helped abundant wildlife and plants thrive in this area for thousands of years, which in turn supported nomadic native peoples. By the 1700s, European immigrants began exploring the canyon's surrounding floodplain area, searching for minerals and farmland. In the early 1850s, government surveyors established a military supply route by following the main fresh-water stream that cut through the canyon. Government Canyon's name grew from this association.

The clear springs, fertile floodplains and lush grasslands supported farming and ranching in this area between 1860 and the 1970s. Through it all, a family's success or failure was dependent on their land management practices and the supply of fresh and abundant water.

From 1974 until 1991, speculators planned a development for 80,000 people over this property. During this period, growing awareness of San Antonio's dependence on the aquifer's supply of freshwater led to controversy concerning development over the recharge zone.

By 1991, water was connecting people through common concerns. Civic and environmental groups formed the Government Canyon Coalition, hoping to purchase this property and protect a section of rapidly disappearing recharge zone from further development. In 1992, the government's Resolution Trust Corporation acquired this property from the developers and put it up for auction. A State Natural Area was about to be born.

## PARTNERSHIPS PROTECTING THE CANYON

Government Canyon State Natural Area's partnerships are a model for future sites for the Texas Parks and Wildlife Department (TPWD) and Texas' public lands. This unprecedented collaboration among community and government agencies is responsible for setting aside and protecting thousands of acres of important aquifer recharge zone and habitat for endangered songbirds and cave invertebrates.

It began in 1991 when 45 civic and environmental organizations, called the Government Canyon Coalition, (later renamed the Government Canyon Natural History Association) partnered with the Trust for Public Land to save the canyon by removing it from public auction. They then convinced the Edwards Underground Water District (now Edwards Aquifer Authority) and the San Antonio Water System to pay 75% of the purchase price. TPWD provided the remaining funds, assuming general management and title of the original 4,717-acre property in 1994.

TPWD and its partners continued to work together to raise funds for additional land acquisition, and by 2005 the State Natural Area had almost doubled in acreage from its original size.

Together, this partnership has created, funded and developed infrastructure for one of the nation's largest State Natural Areas. In the process they have provided a model for outdoor education and recreation, while protecting significant public resources.

