

# Proposition One Edwards Aquifer Protection Program

Presented by:

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Conservation Easements for Water Quality  
Protection

Smart Growth Development in the West:  
What are the Water Implications?

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# Edwards Aquifer

- Reliance on this pure source of drinking water lead to the growth of San Antonio and the region.
- This growth accelerated in recent years due to several factors including favorable weather and this source of drinking water.

# Demographics

- Texas is one of the nation's fastest growing states.
- From 1950 to 2000, population in the state grew from about 8 million to nearly 21 million.
- By the year 2050, the population of our state is estimated to total 40 million. Roughly double in population.

# Edwards Aquifer Protection in Bexar County

- In May of 2000, the citizen of San Antonio voted to tax themselves to preserve the Edwards Aquifer sensitive zones.
  - Known as the Proposition Three Program
  - This was accomplished with a 1/8<sup>th</sup> cent sales tax.
  - Collection was not to exceed \$45 million.
  - Acquisitions limited to Bexar County
  - Program completed in January 2005.

# Continuing the Preservation Effort

- The need to continue protection of the Edwards Aquifer Sensitive Zones was due to concerns that:
  - Bexar County is either developed or in process of development with approved Master Development Plans.
  - 81,610 acres of recharge area
  - 6,539 acres preserved in first program
  - 4,849 recharge acres and 1,690 contributing zone acres
  - 6% of recharge area in Bexar County preserved

# Proposition One

- A second sales tax initiative was approved by the voters in San Antonio in May 2005
  - The 1/8<sup>th</sup> cent sales tax was reinstated.
  - Collect up to \$90 to protect and preserve the Edwards Aquifer sensitive zones
  - This program could now extend outside of Bexar County into Edwards Aquifer areas threatened by population growth or destruction of the resource.

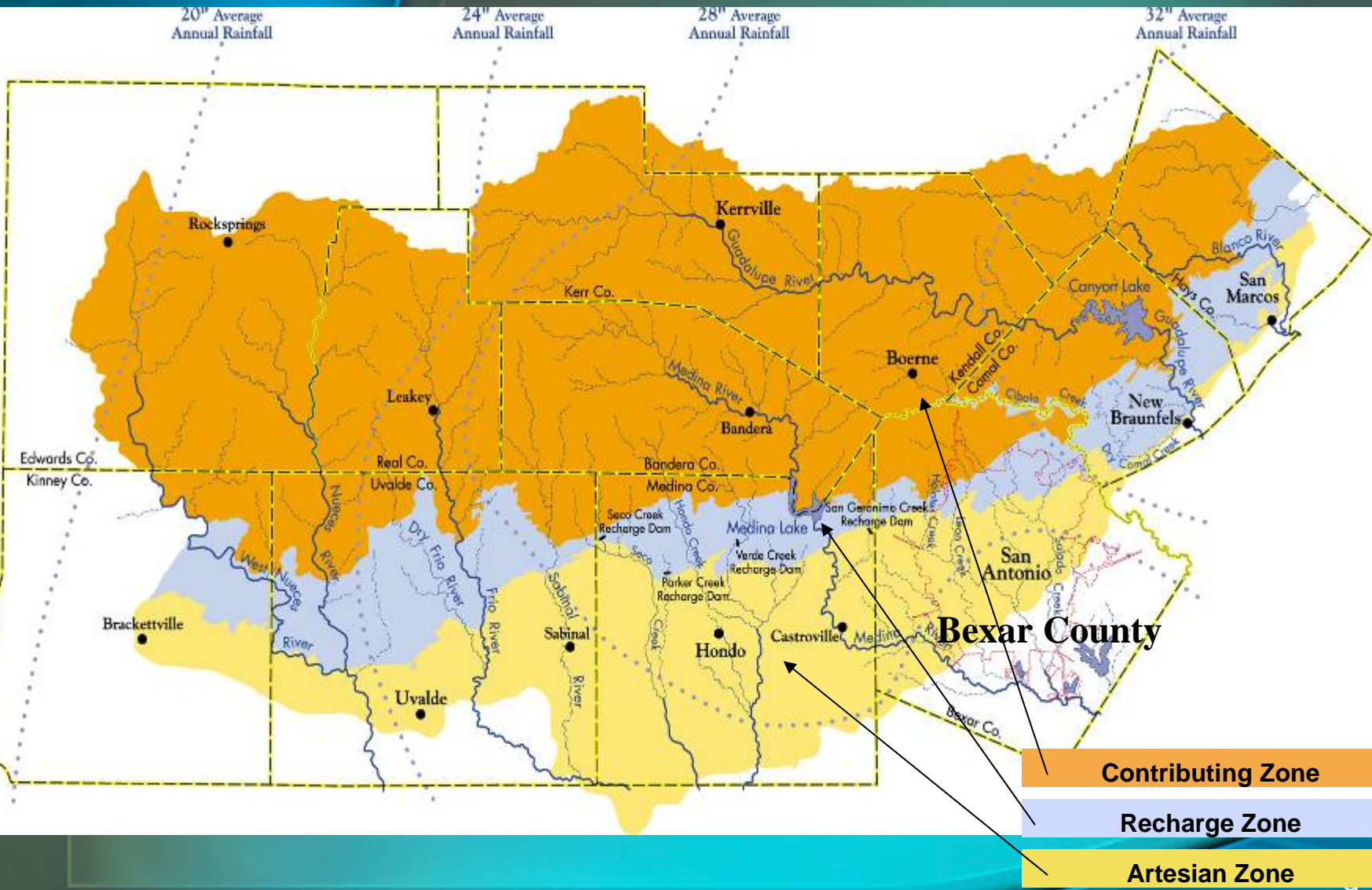
# Proposition One

- Since the most sensitive areas in Bexar County were now either preserved or developed or unobtainable how do we protect our region's water supply?
- How do we look into the future and anticipate population growth and how this growth will affect our water supply?

# New Program Effort

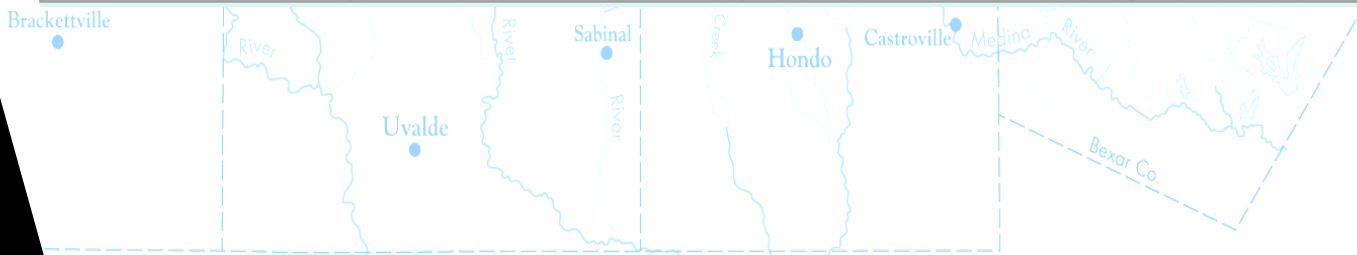
- Concentrates on water quality and quantity
- Continues acquisitions in and around Bexar County
- Strategy for acquisitions over the project area important
- Concentrate on conservation easements instead of fee simple purchases

# Edwards Aquifer Region



## EDWARDS AQUIFER RECHARGE ZONE BY COUNTY

County	Area in Acres	Area in Square Miles	Percentage of Total
Kinney	76,482 acres	120 sq. miles	9.58%
Uvalde	287,064 acres	449 sq. miles	35.83%
Medina	139,118 acres	217 sq. miles	17.32%
Bexar	81,610 acres	128 sq. miles	10.22%
Comal	119,551 acres	187 sq. miles	14.92%
Hays	97,231 acres	152 sq. miles	12.13%
<b>Totals</b>	<b>801,056 acres</b>	<b>1,253 sq. miles</b>	<b>100%</b>



# Process to Implement the Proposition One Program

- Three specialized groups formed to implement the program
  - The Scientific Evaluation Team
  - The Conservation Advisory Board
  - The Land Acquisition Team

# Scientific Evaluation Team (SET)

- The SET created a spatial model to identify potential land for acquisition
  - By outlining and prioritizing the characteristics of areas most likely to contain:
    - recharge features
    - geological land features which contribute to the Edwards Aquifer
    - and by creating a rating system to determine the most important sites for acquisition by using three value groups

# Scientific Evaluation Team (SET)

## The three value groups are:

- Biological - 20%
  - Evaluates the vegetative cover and the ability of this vegetative cover to conduct recharge water
- Proximity - 30%
  - Higher scores assigned to parcels >60 acres and >1,00 parcels and adjacent to open space such as public land or other conservation easements
- Permeability - 50%
  - Based on Edwards Aquifer Vulnerability Rankings from USGS (caves, slopes, fractures, fissures and soil permeability)
  - aquifer formation and location characteristics, streams, and hydro geological surface and sub-surface flow characteristics)

# Scientific Evaluation Team (SET)

- The following agencies and individuals worked to create this GIS-spatial model for the Edwards program:
  - Texas Parks & Wildlife
  - Edwards Aquifer Authority
  - San Antonio Water Systems
  - COSA Parks & Rec. Dept.
  - COSA Information Services Department
  - U.S. Geological Survey
  - UTSA
  - US Fish and Wildlife Service
  - San Antonio River Authority
  - George Veni and Associates
  - ESRI

# Conservation Advisory Board (CAB)

- The second board created was the CAB which:
  - Utilizes the SET's scientific GIS-spatial model to identify potential land for inclusion in the protection program.
  - Evaluates all properties identified for acquisition and recommends purchase to The Planning Commission and City Council.

# CAB Property Selection Criteria

- The CAB is especially concerned with areas for acquisition where development is imminent.
- A special effort is made to negotiate and acquire land prior to development.
- Factors considered in this special effort included:
  - size, cost, proximity to other public property, open space linkages, and adjacency to other Prop 3 property
  - Advance sale of small parcels around property indicating development direction
  - Location to developed areas
  - Status of development plans
  - Extension of utilities or planned extension of utilities

# Conservation Advisory Board (CAB)

- Eleven member board and is composed of members from:
  - Texas Parks & Wildlife
  - Edwards Aquifer Authority
  - San Antonio Water Systems
  - Economic Development Foundation.
  - COSA Parks & Rec. Dept.
  - San Antonio River Authority
  - Parks & Rec. Advisory Board
  - Representative from Median County
  - Representative from Uvalde County
  - Representative Natural Resource Conservation Service (vacant)
  - Representative from US Geological Survey (vacant)

# Land Acquisition Team

- A land acquisition team composed of non-profit land conservation trusts (The Bexar Land Trust, The Nature Conservancy and the Trust for Public Land), and the City Project Manager, report to the CAB the availability of certain tracts for acquisition based on the CAB directives.

# Land Acquisition

- The Land Acquisition Team can enter into option and contract agreements on identified properties on the City's behalf.
- The property rights can be acquired in three ways:
  - Land Purchase (fee simple)
  - Land Donation
  - Perpetual Conservation Easements

# Conservations Easements

- The City of San Antonio is just starting work to purchase conservation easements from individual land owners.
- This is a new tool for the city and we have not closed on an easement with a private owner in the program to date.
- Several negotiations in several counties are ongoing for conservation easement purchases.
- This is a willing seller program and participation is voluntary.

# Purpose of the Conservation Easement

- Preserve natural condition of the property
- Protects the property's natural resources, watershed, recharge water quality, and ecological integrity
- Protect and preserve native vegetation, habitat and native wildlife

# Purpose of the Conservation Easement

- Restrict property to low impact human activities
  - Limited agricultural and ranching use
  - Hunting
  - Kayaking or canoeing
  - Hiking
  - Bicycling
  - Picnicking
  - Camping

# Prohibited Uses

- Development, divide, subdivide, or partition (Partitions where agreed in the conservation easement)
- Transferring, conveying, or selling of surface or subsurface water rights for use off the property
- Extraction of minerals or hydrocarbons or other materials on or below the surface

# Permitted Uses

- Right to continue use of property and undertake new activities not prohibited by the conservation easement
- Right to sell, give, mortgage, lease, or otherwise convey the property
- Agricultural Use
- Any lawful home business
- Recreational Uses

# Other Easement Factors

- No access to the property by the general public
- Easement allows for research activities
- Allows for the construction, operation and maintenance of recharge structures on the property in mutually agreeable locations
- Easement Documentation Report and inspections of the property to determine easement compliance

# Contact Information

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