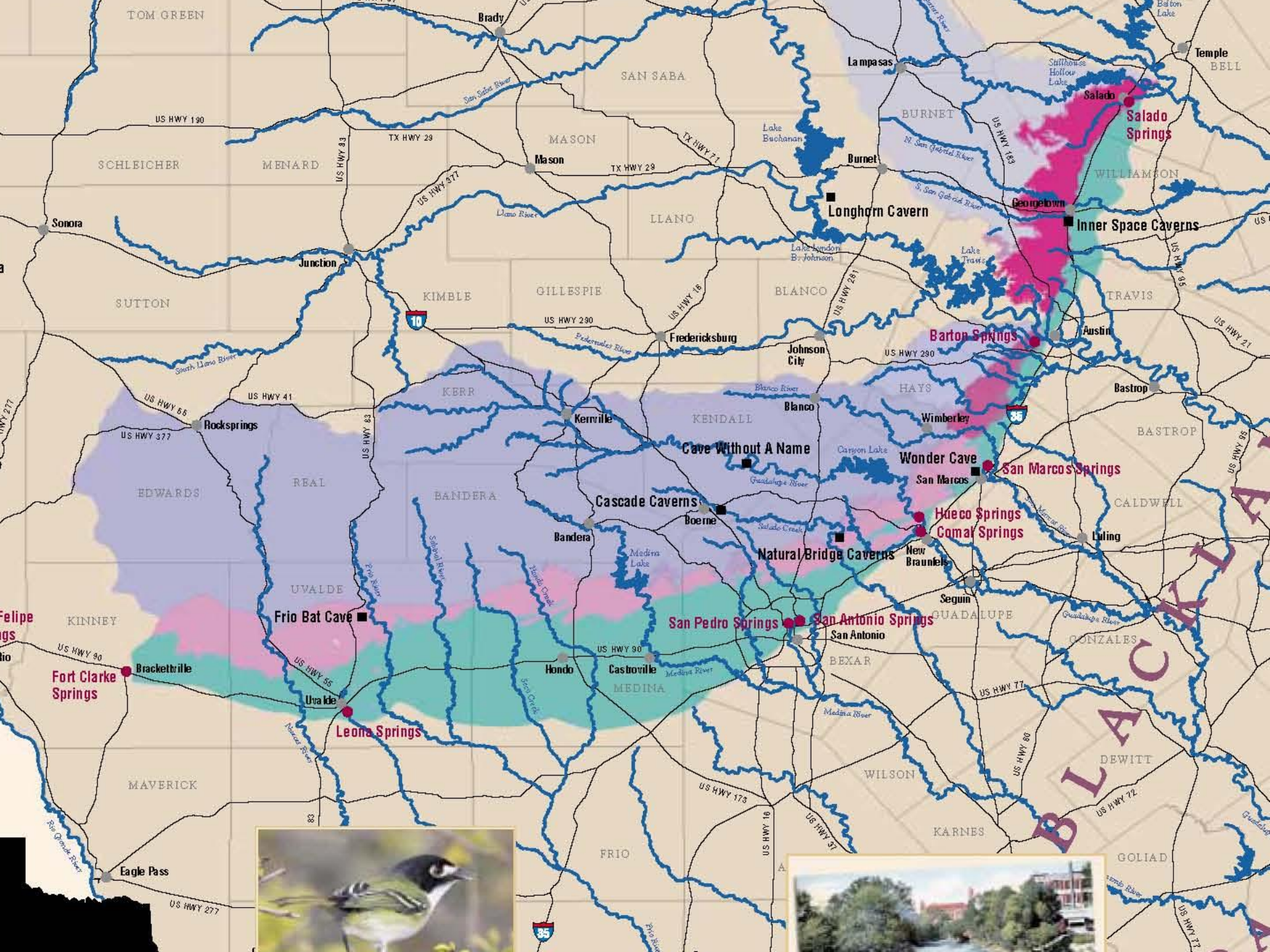
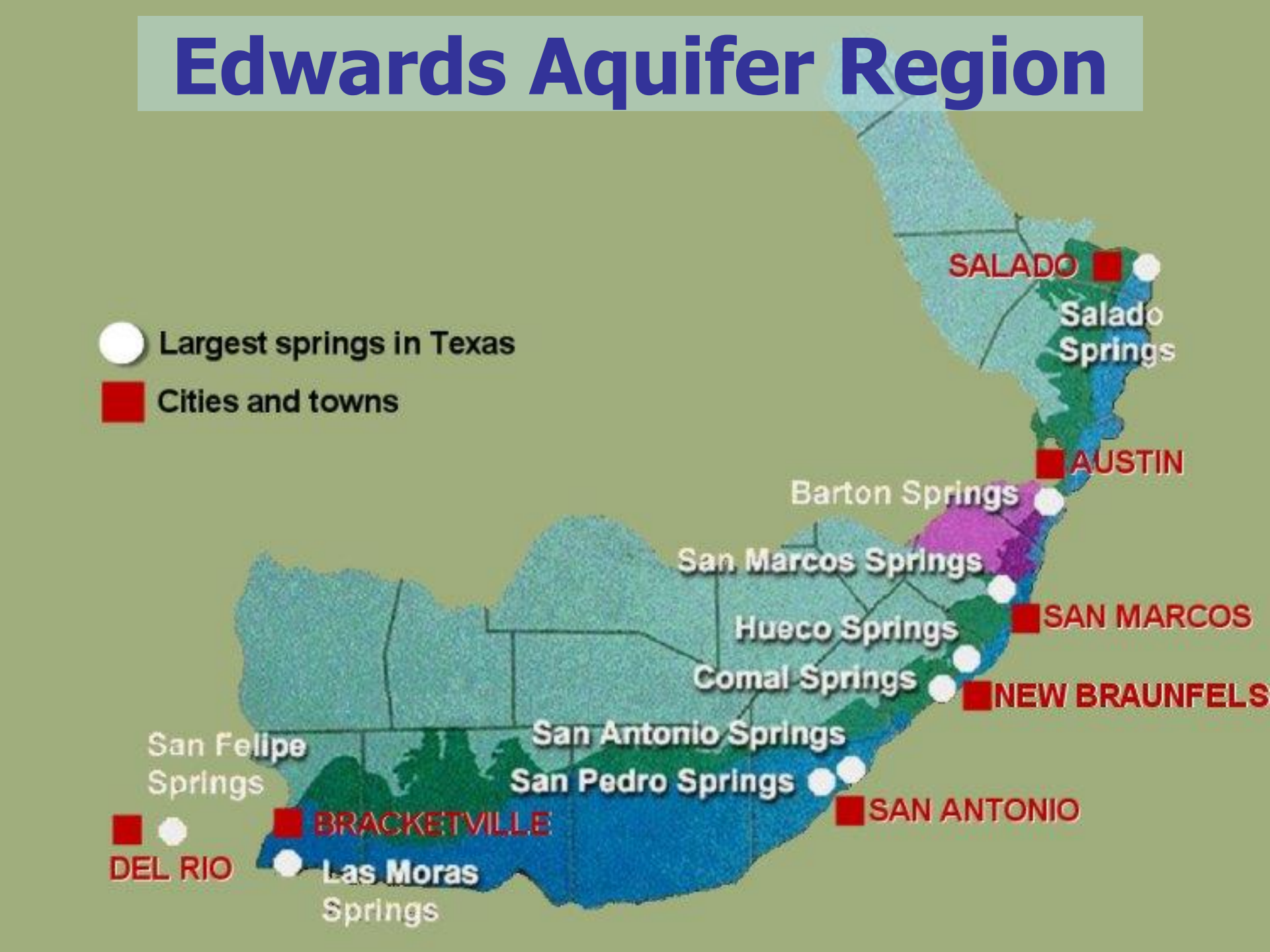
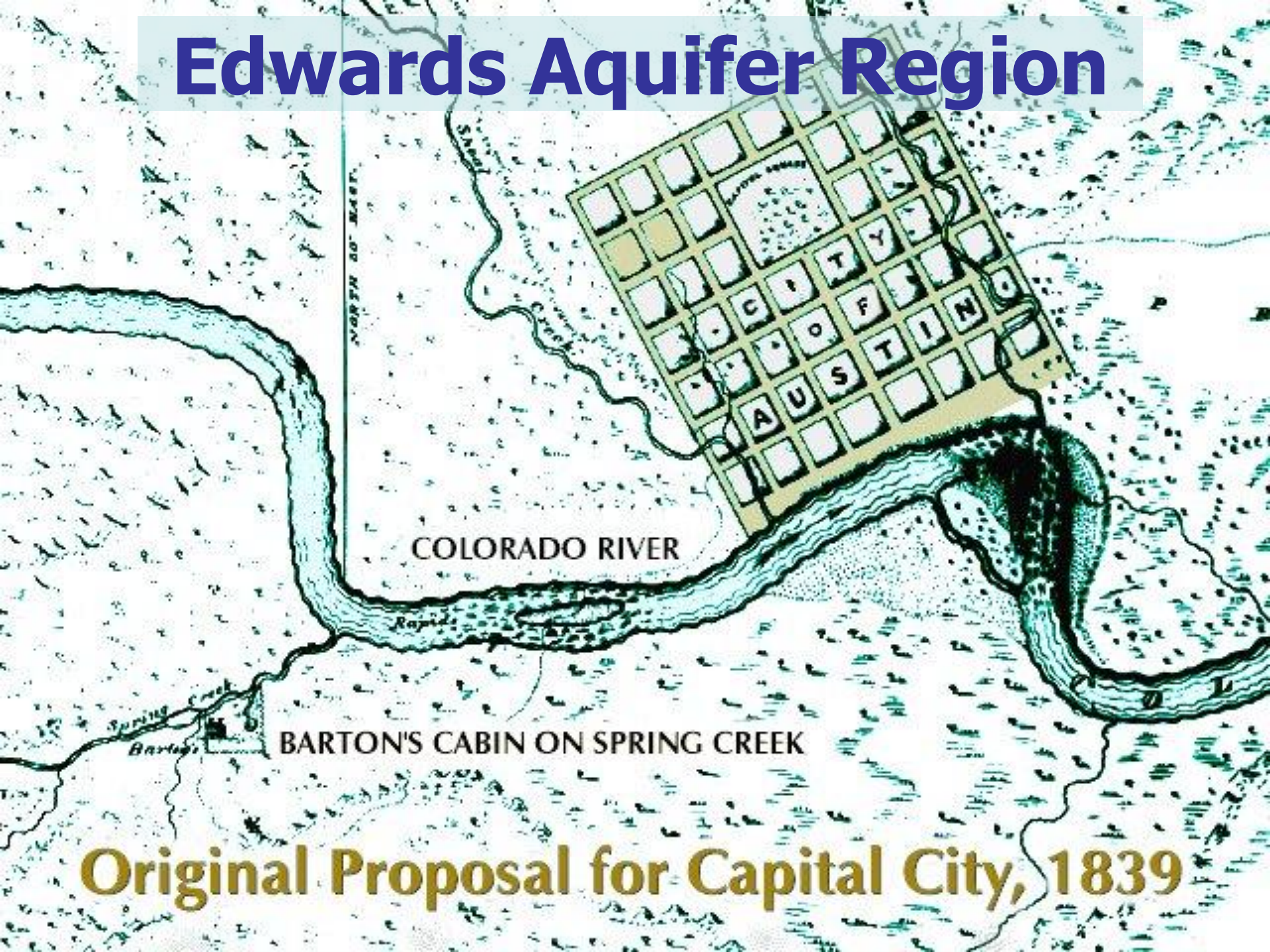

The Edwards Aquifer Ecosystem
The Heart of Texas


TOM GREEN
Brady
SAN SABA
Lampasas
Temple
BELL
Stillhouse Hollow Lake
Salado
Salado Springs
BURNET
US HWY 190
TX HWY 29
MASON
Lake Buchanan
US HWY 183
SCHLEICHER
MENARD
US HWY 83
Mason
TX HWY 29
Burnet
WILLIAMSON
US HWY 377
Longhorn Cavern
Georgetown
Inner Space Caverns
Sonora
LLANO
Lake LBJ
Lake Travis
Junction
SUTTON
KIMBLE
GILLESPIE
BLANCO
US HWY 281
TRAVIS
US HWY 290
Fredericksburg
Barton Springs
Austin
Johnson City
KERR
HAYS
Blanco
Bastrop
US HWY 41
US HWY 377
Rocksprings
Kerrville
KENDALL
Wimberley
BASTROP
Cave Without A Name
Canyon Lake
Wonder Cave
San Marcos Springs
San Marcos
EDWARDS
REAL
BANDERA
Cascade Caverns
Boerne
Hueco Springs
Comal Springs
CALDWELL
Bandera
Natural Bridge Caverns
New Braunfels
Luling
Medina Lake
UVALDE
Seguin
KINNEY
Frio Bat Cave
San Pedro Springs
San Antonio Springs
GUADALUPE
San Antonio
US HWY 90
Fort Clarke Springs
Brackettville
Hondo
Castroville
BEXAR
GONZALES
US HWY 77
Uvalde
Leona Springs
MEDINA
MAVERICK
WILSON
DEWITT
US HWY 277
Eagle Pass
FRIO
KARNES
GOLIAD
BLACKLAND

Edwards Aquifer Region



Edwards Aquifer Region



Original Proposal for Capital City, 1839

Edwards Aquifer Ecosystem

Home to over 50 plant and animal species that live nowhere else in the world.

Black capped Vireo

Golden cheeked Warbler

Barton Springs salamander (*Eurycea sosorum*)

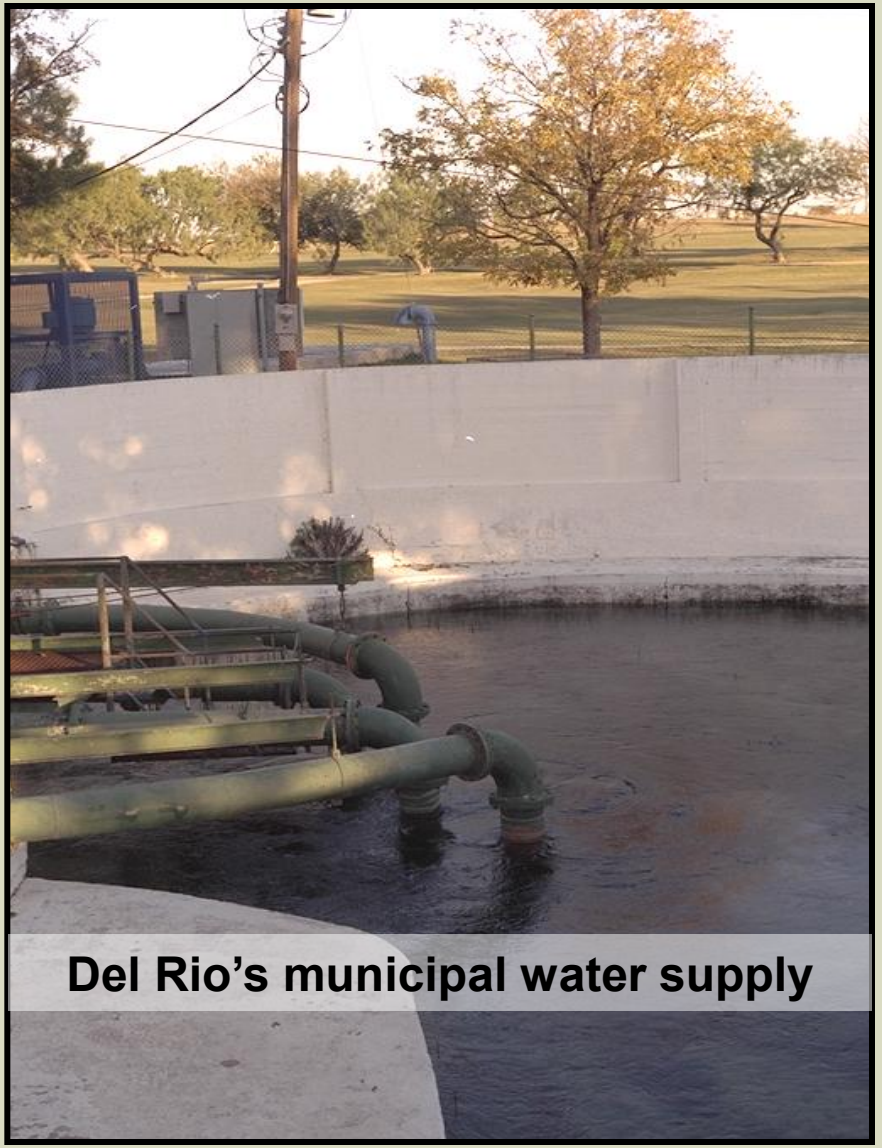
Texas Blind salamander (*Eurycea rathbuni*)

Texas wild rice

Fountain darters

Edwards Aquifer Ecosystem

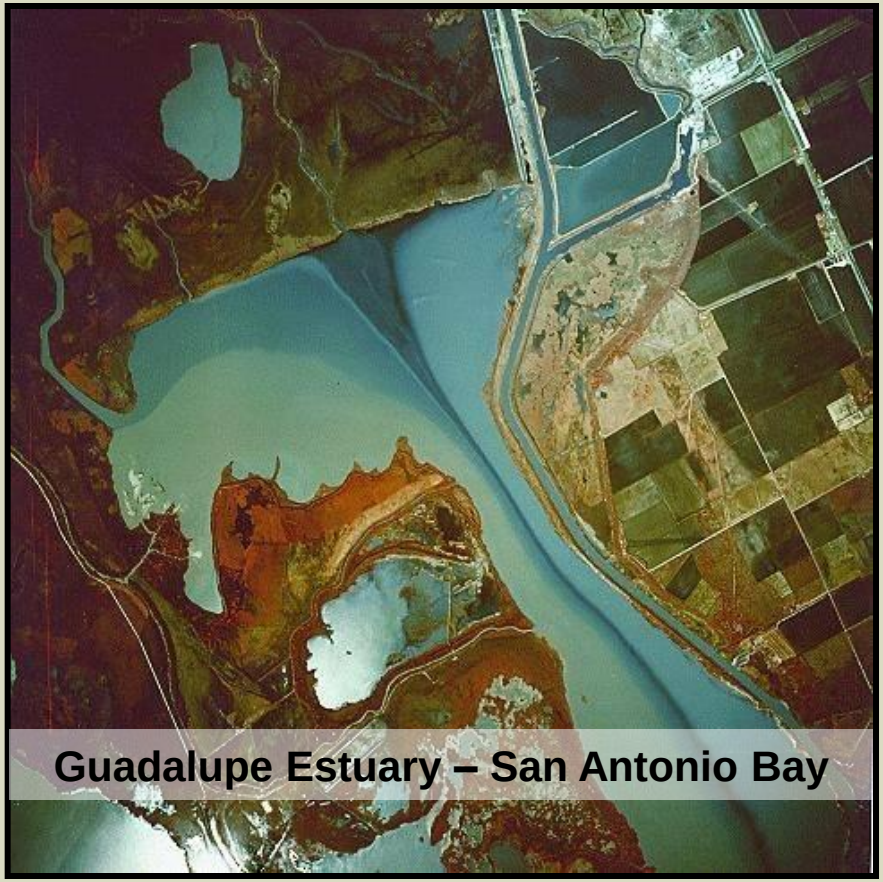
Providing the sole source of drinking water for over 1.7 million citizens.



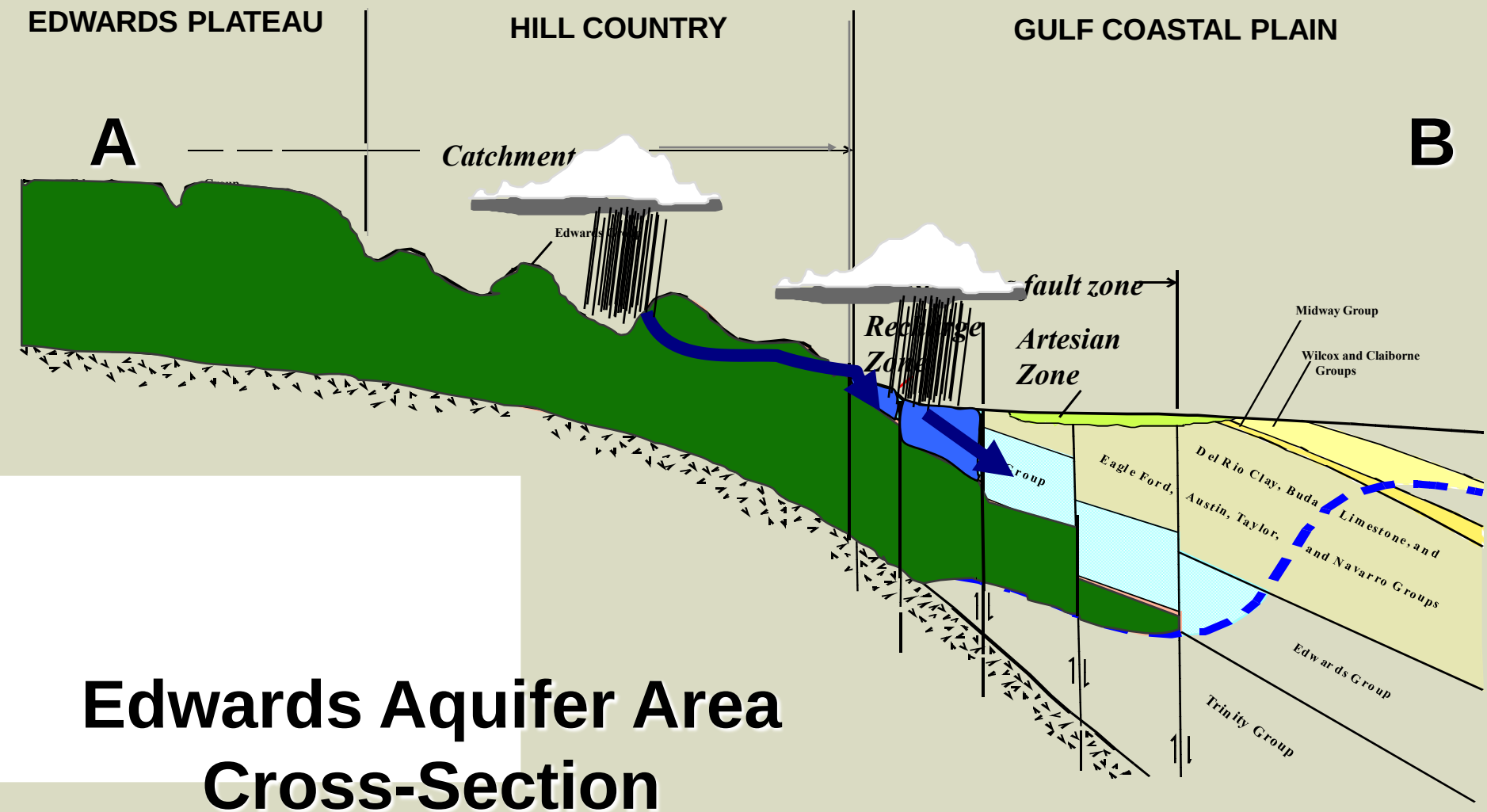
Del Rio's municipal water supply

Edwards Aquifer Ecosystem

Sustaining essential freshwater flows to bays and estuaries during times of drought



Guadalupe Estuary – San Antonio Bay



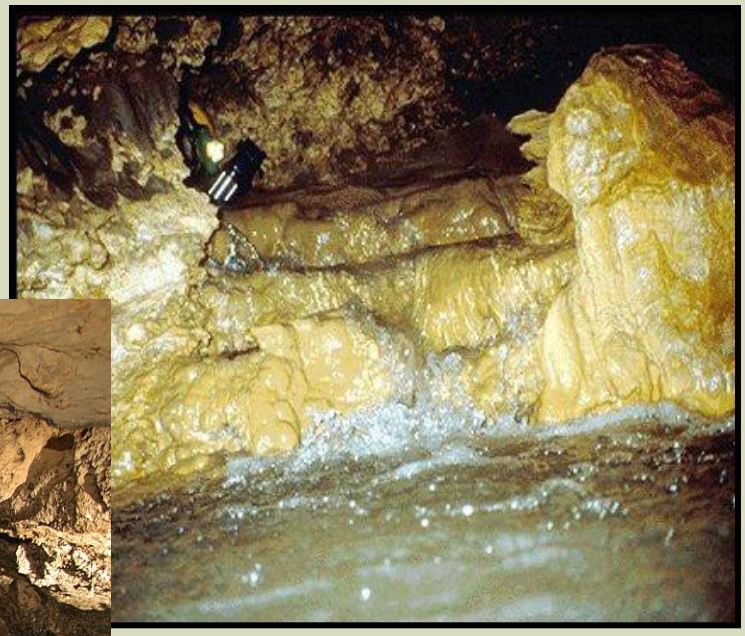
Edwards Aquifer Area Cross-Section

Edwards Aquifer Ecosystem

Thin to non-existent Hill Country soils . . .

. . . rapid, groundwater recharge. . .

. . . rapid open channel flow . . .

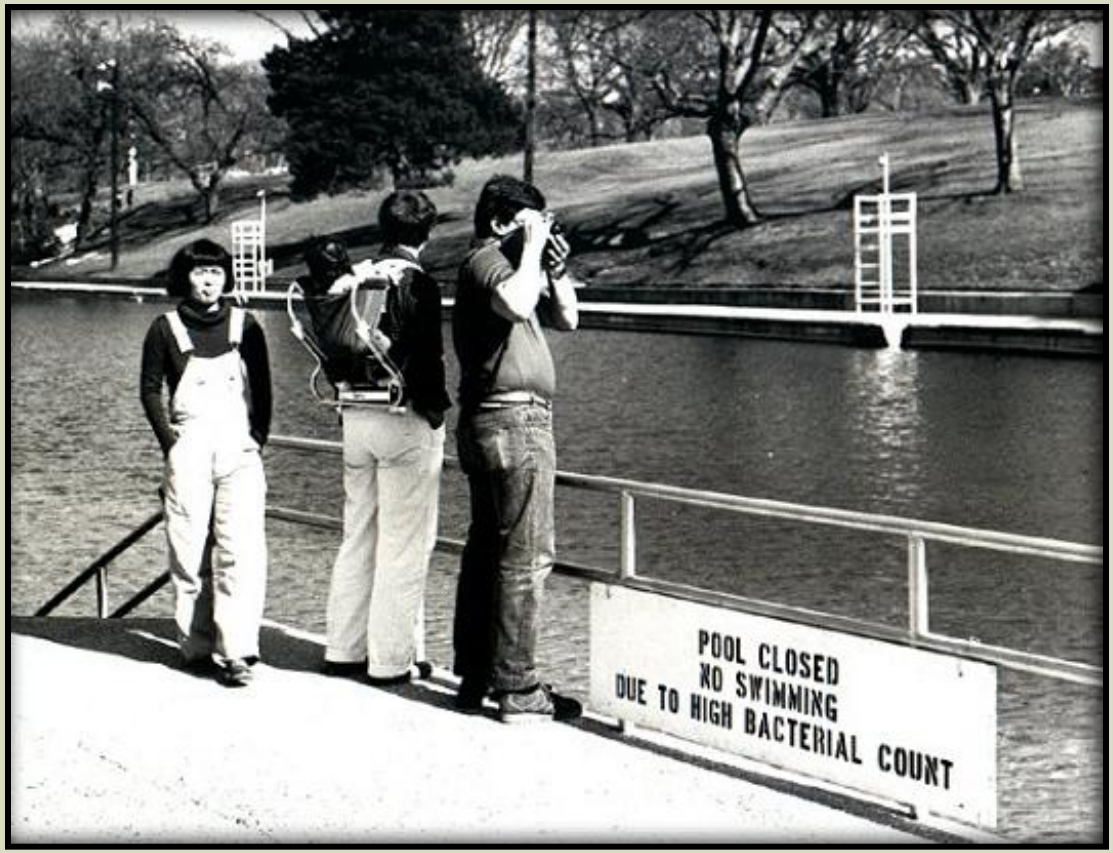


. . . provides
minimal filtration of
pollutants that enter
the aquifer . . .

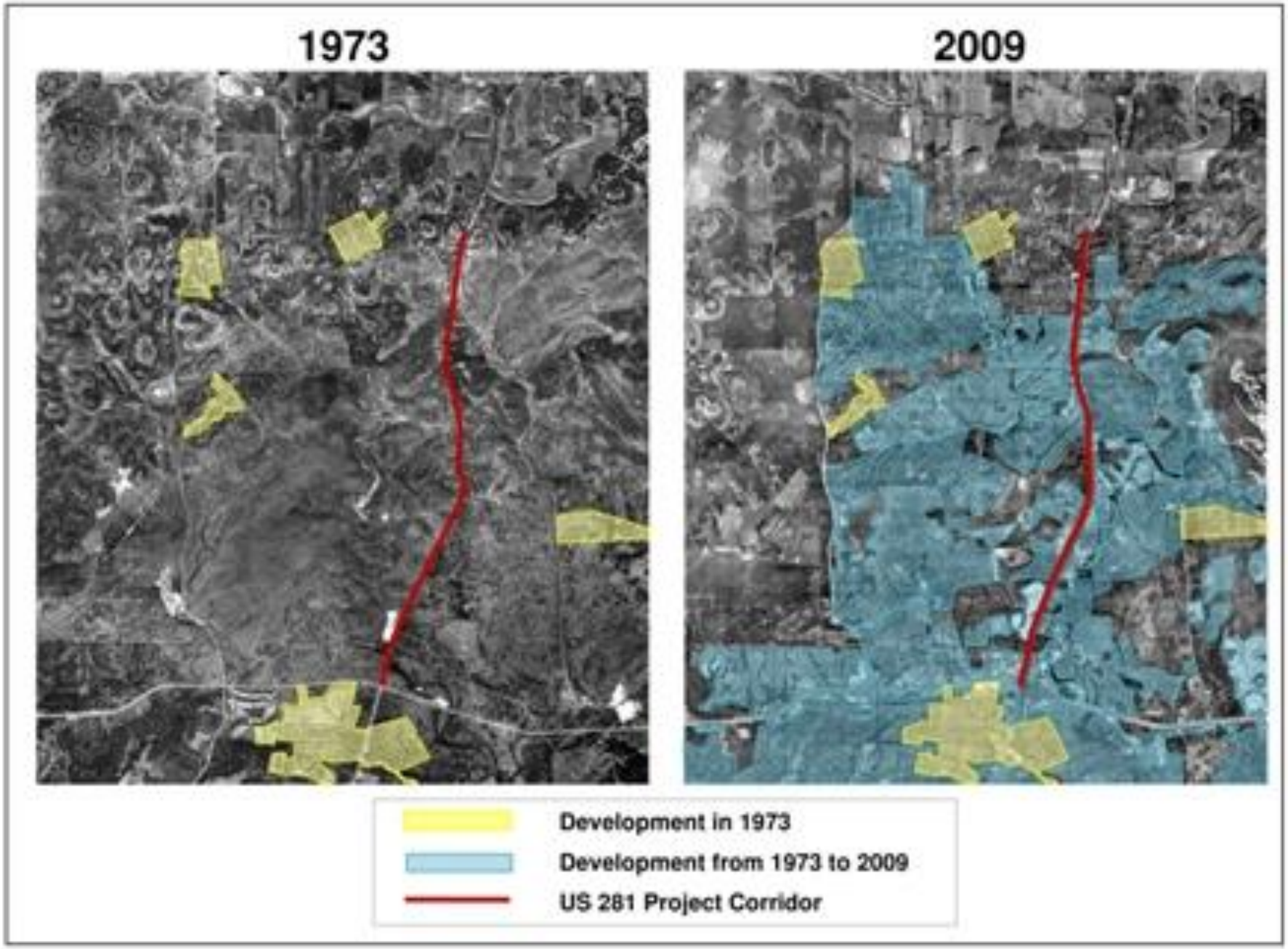
. . . combine to make the Edwards Aquifer more vulnerable to pollution than any other major aquifer in Texas.

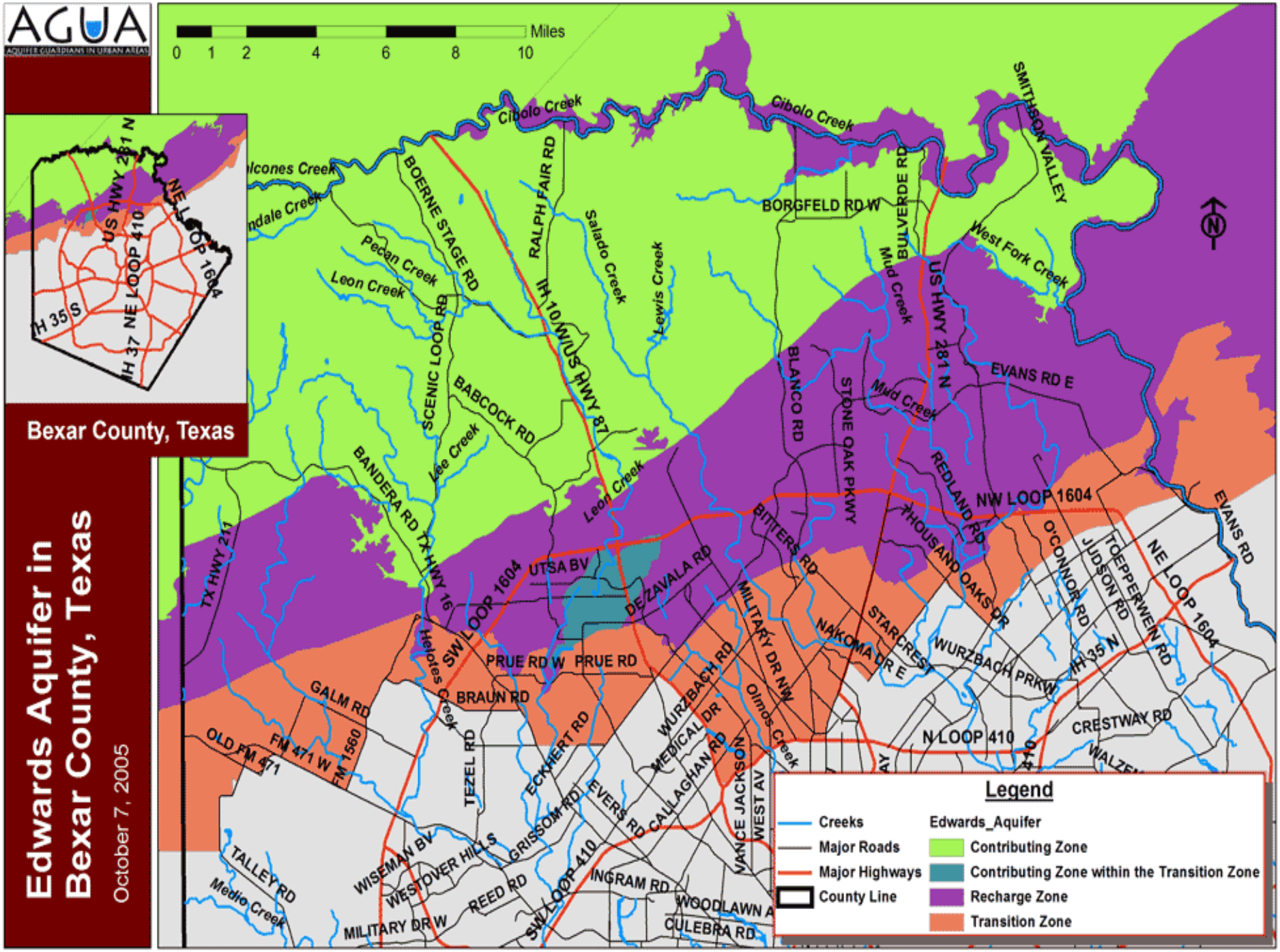
Edwards Aquifer Ecosystem

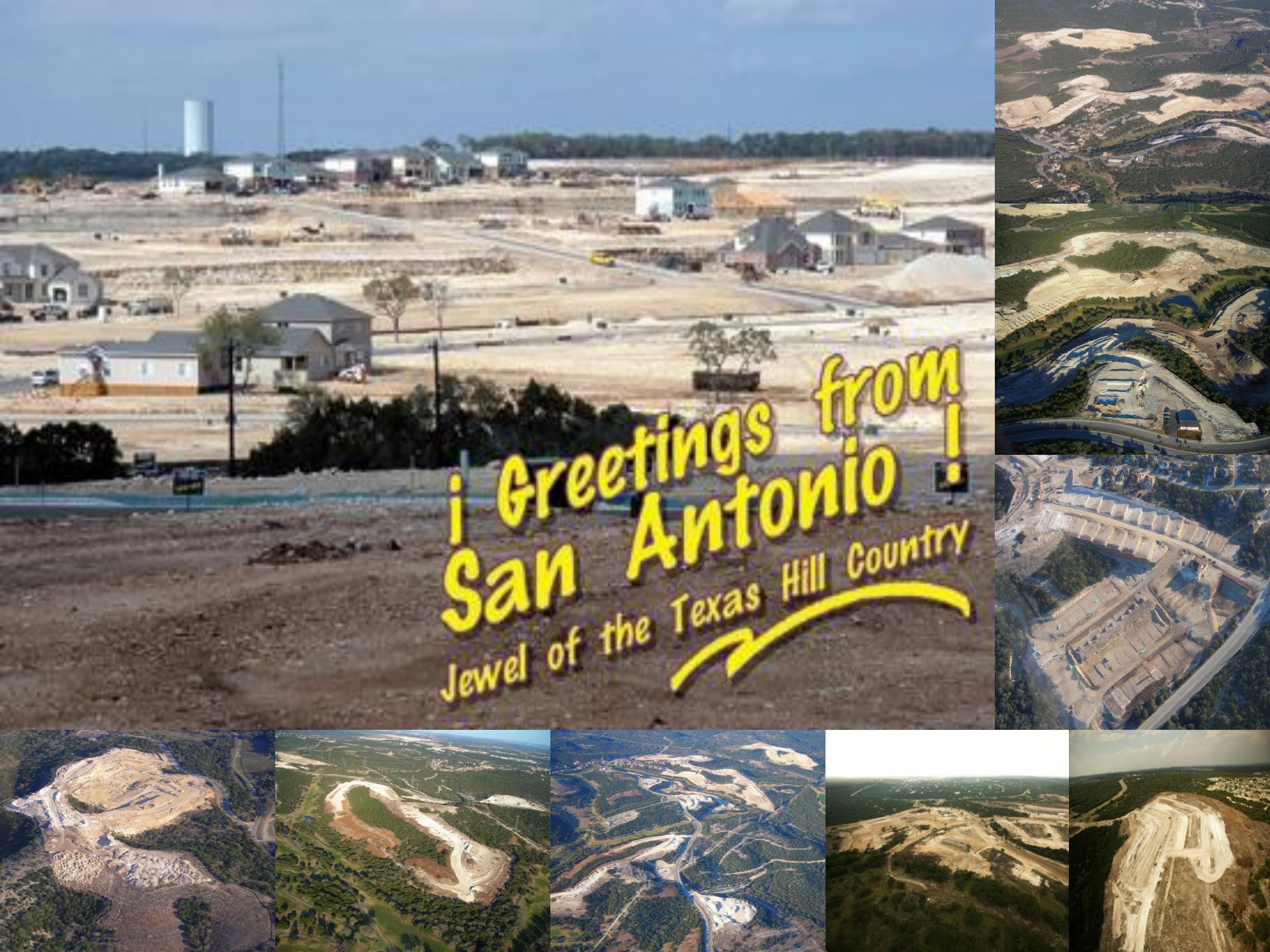
Rapid, unsustainable urbanization threatens pollution of the Great Springs of Texas.

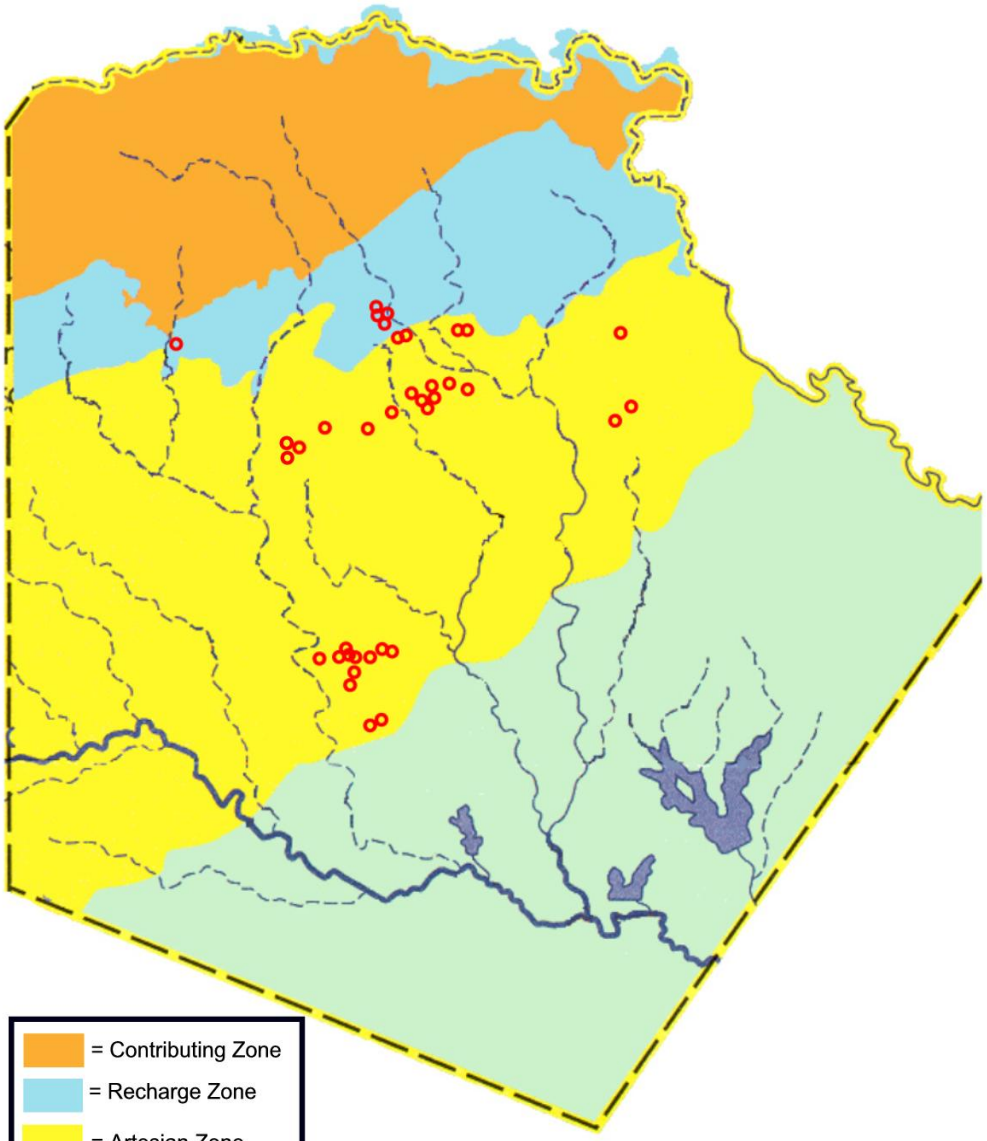


US 281 on the Edwards Aquifer Recharge Zone in San Antonio, Texas



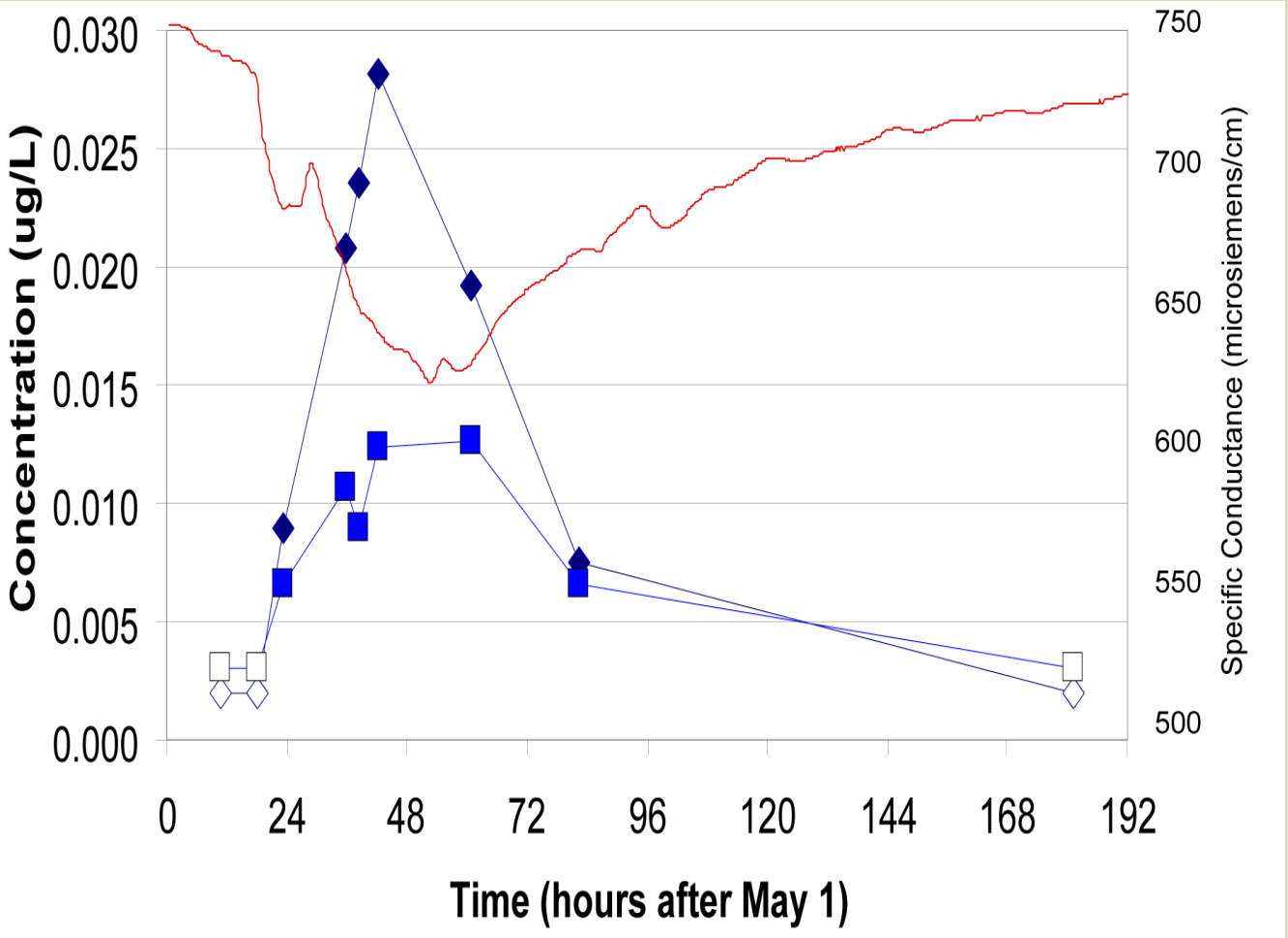

AGUA
AQUIFER GUARDIANS IN URBAN AREAS
Miles
0 1 2 4 6 8 10
Bexar County, Texas
Edwards Aquifer in Bexar County, Texas
October 7, 2005
Cibolo Creek
Salado Creek
Leon Creek
Lewis Creek
Mud Creek
West Fork Creek
Pecan Creek
Lee Creek
Helotes Creek
Olmos Creek
Medio Creek
BOERNE STAGE RD
RALPH FAIR RD
IH 10/US HWY 87
SCENIC LOOP RD
BABCOCK RD
BANDERA RD
TX HWY 16
TX HWY 211
BORGFELD RD W
BULVERDE RD
SMITHSON VALLEY
US HWY 281 N
EVANS RD E
EVANS RD
BLANCO RD
STONE OAK PKWY
REDLAND RD
THOUSAND OAKS DR
NW LOOP 1604
NE LOOP 1604
O'CONNOR RD
JUDSON RD
TOEPPERWEIN RD
IH 35 N
WURZBACH PRKWY
STARCREST
NAKOMA DR E
SW LOOP 1604
UTSA BV
DEZAVALA RD
BITTERS RD
MILITARY DR NW
WURZBACH RD
MEDICAL DR
CALLAGHAN RD
N LOOP 410
CRESTWAY RD
PRUE RD W
PRUE RD
BRAUN RD
GALM RD
OLD FM 471
FM 471 W
FM 1560
TEZEL RD
ECKHERT RD
EVERS RD
GRISSOM RD
WISEMAN BV
WESTOVER HILLS
TALLEY RD
REED RD
MILITARY DR W
SW LOOP 410
INGRAM RD
VANCE JACKSON
WEST AV
WOODLAWN A
CULEBRA RD
IH 35 S
IH 37
NE LOOP 1604
US HWY 281 N
NE LOOP 410
Legend
Creeks
Major Roads
Major Highways
County Line
Edwards_Aquifer
Contributing Zone
Contributing Zone within the Transition Zone
Recharge Zone
Transition Zone

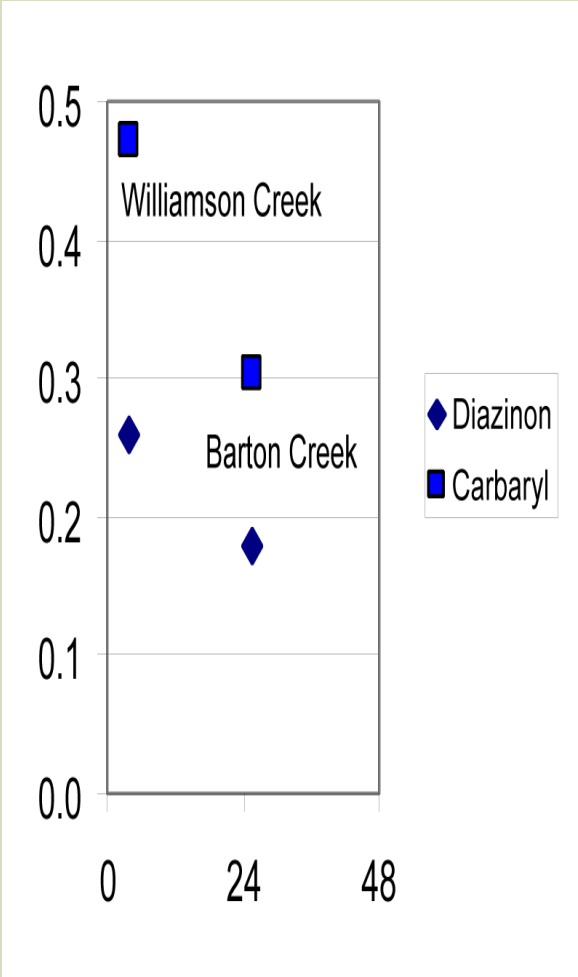

¡ Greetings from San Antonio !
Jewel of the Texas Hill Country



Bexar County
Public Supply Wells Found to Contain Chlorinated Solvents

Carbaryl and Diazinon in Barton Springs

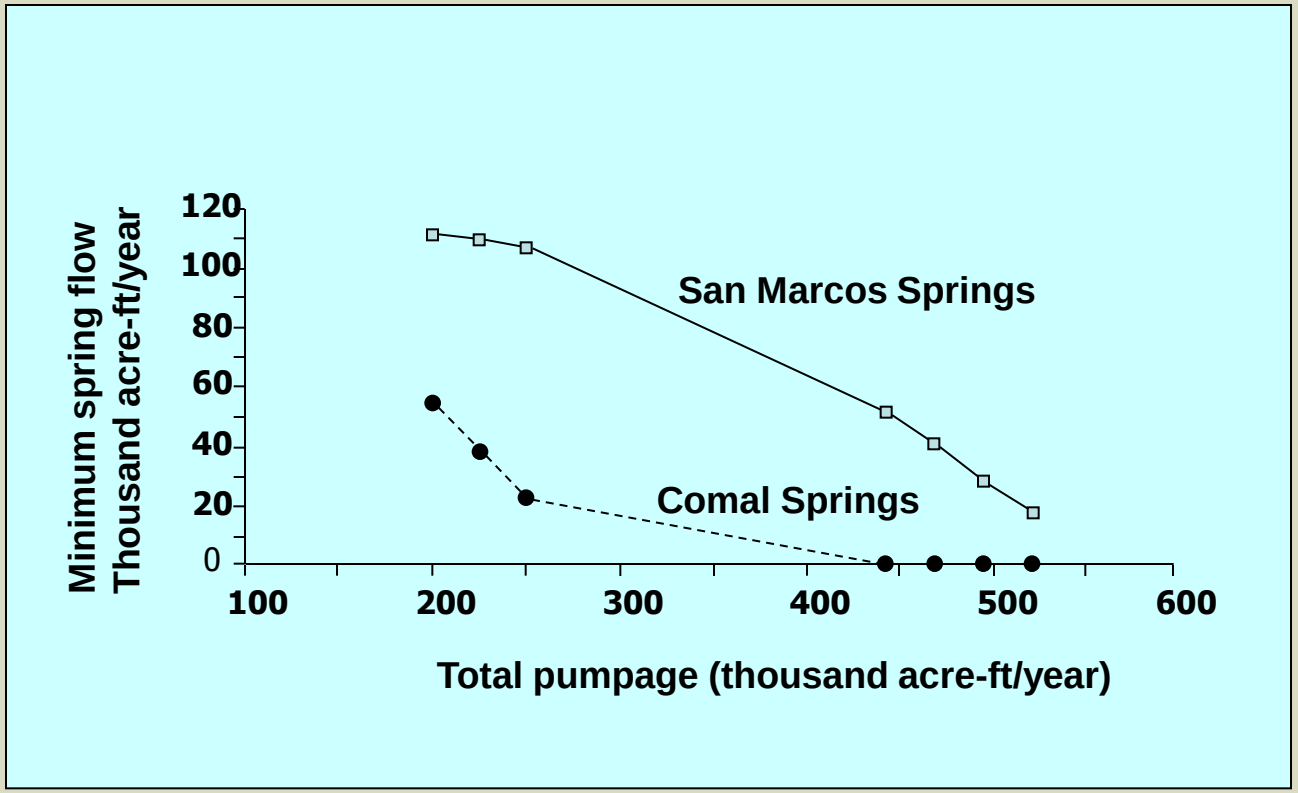




Edwards Aquifer Ecosystem

A Treasure at Risk

Rapid, unsustainable urbanization threatens to overpump the aquifer.



Edwards Aquifer Ecosystem

A Treasure at Risk

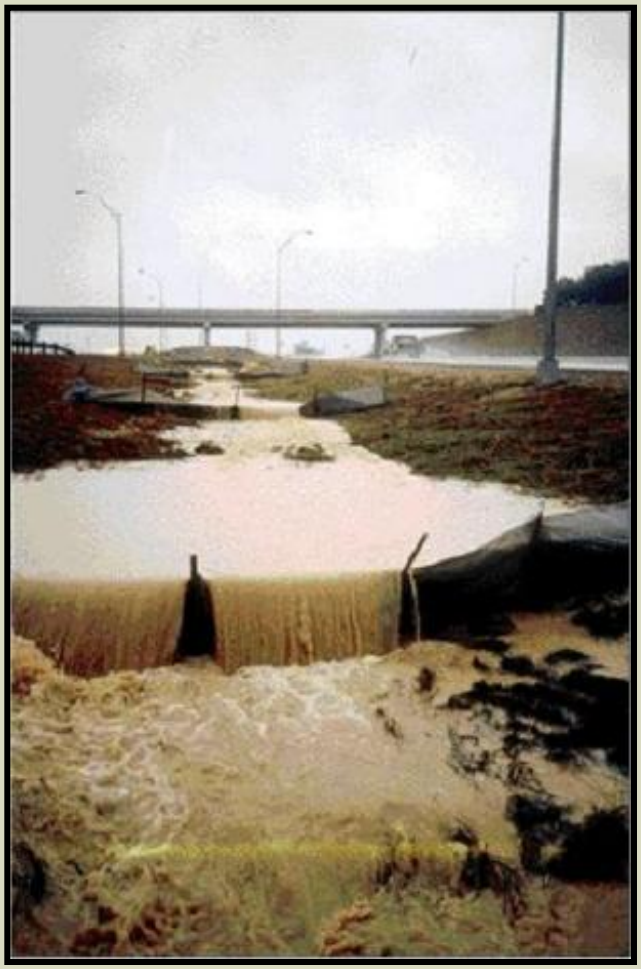
Rapid, unsustainable urbanization is pushing aquatic species to the brink of extinction

Barton Springs salamander with gas bubble disease

A Need for Action

Current measures are inadequate:

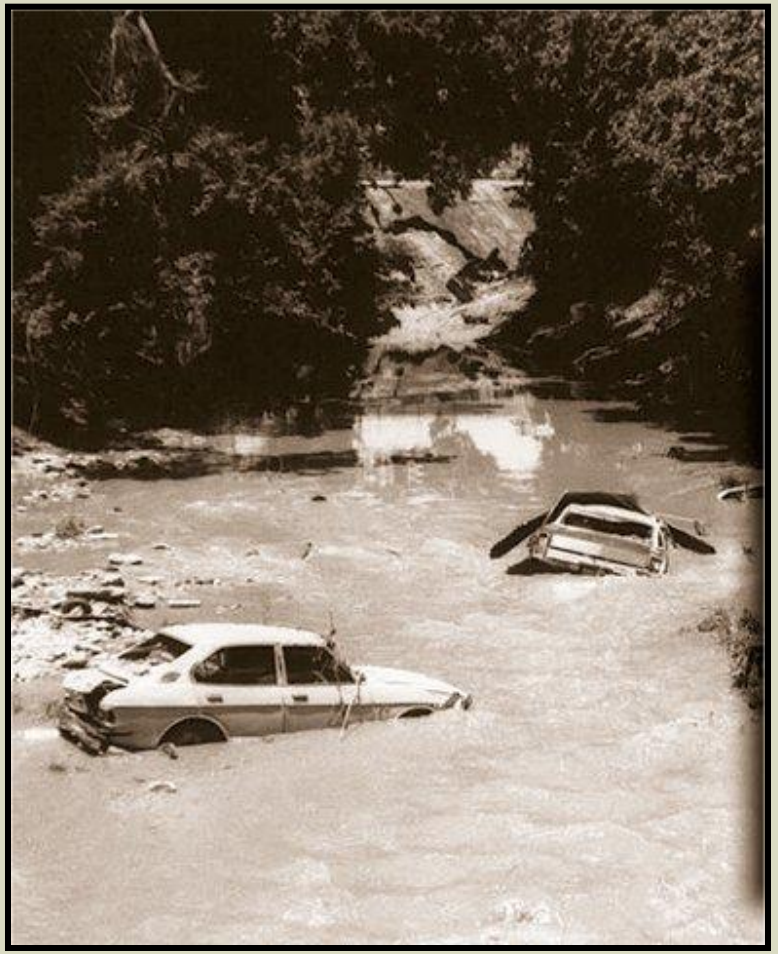
Structural controls often fail to prevent pollution.



A Need for Action

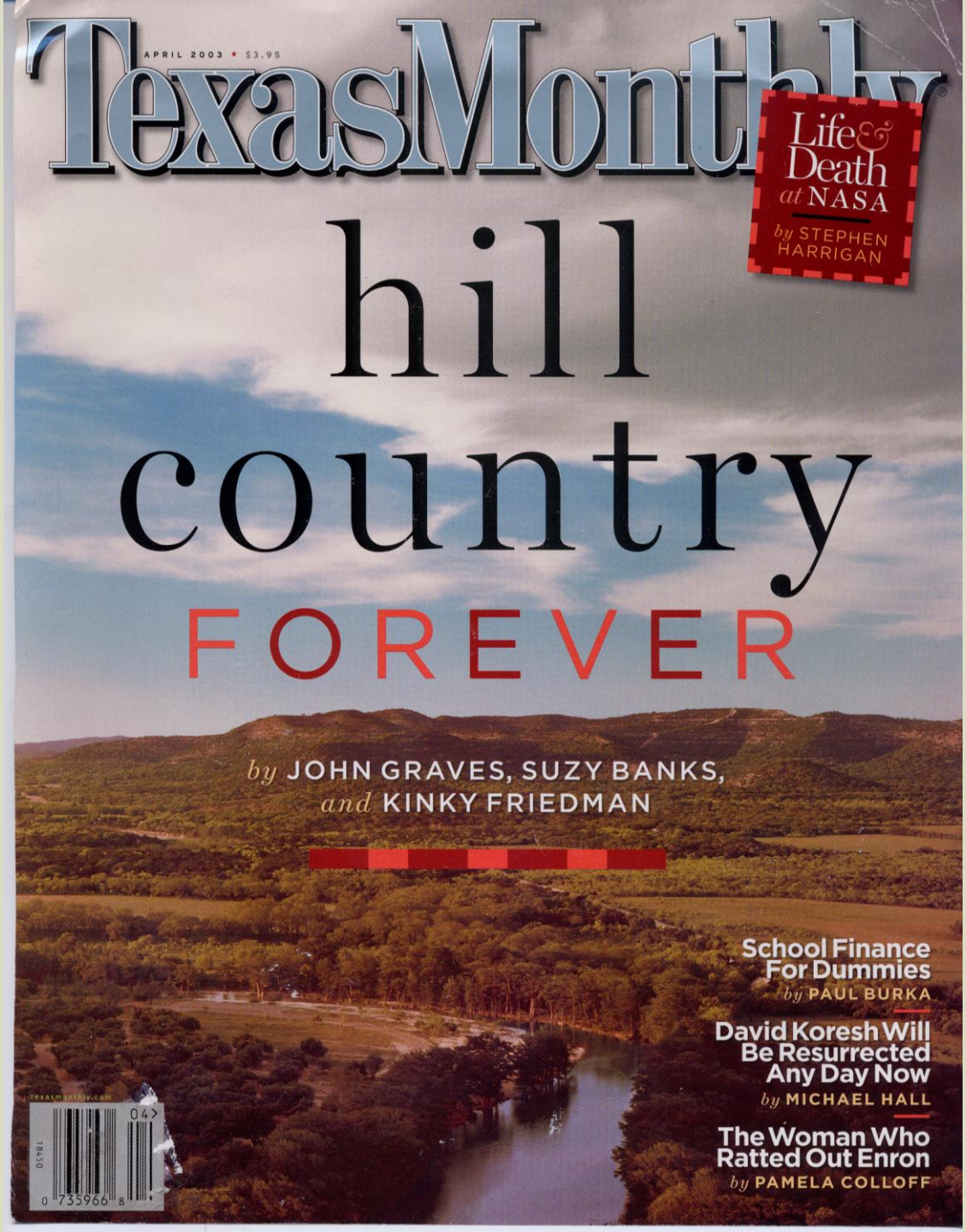
Current measures are inadequate:

Increased impervious cover increases stormwater flows, erosion, and flooding.



Pollutants found in Barton Springs or Contributing Stream Sediments Above Levels which are Toxic to Aquatic Life

Heavy Metals	Pesticides	Polyaromatic hydrocarbons
Arsenic	P-P'-DDD	Benzo(A)anthrocene
Cadmium	P-P'-DDE	Benzo(B)fluoranthene
Copper	P-P'-DDT	Benzo(K)fluoranthene
Lead	Aldrin	Benzo(A)pyrene
Mercury	Endrin	Chrysene
Silver	Heptachlor Epoxide	Dibenz(AH)anthracene
	Beta-BHC	Fluoranthene
	Delta-BHC	Phenanthrene
	Gamma-BHC (lindane)	Pyrene
	PCD	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A Need for Action

- Rapid regional population and urban growth predicted to continue.
- 4 out of the nations 10 fastest growing counties are within Texas Hill Country
- Multiple jurisdictions with no coherent plan or vision for the region

A Need for Action

Based on regional scientific consensus

"Government, private corporations and citizens should act promptly to direct urban development away from the aquifer through control of infrastructure investment…."

"Restrict impervious cover to levels to levels that will sustain existing water quality." (<12%)

Edwards Aquifer Sustainability Initiative

A Need for Action

Based on regional economic consensus

Chamber of Commerce's "New Century Economic Report" confirms that a high quality environment is necessary for a healthy economy


Save It, Don't Pave It

For more information about GEAA and our member groups visit www.AquiferAlliance.org

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