

Kevin M. Anderson, Ph.D, Coordinator



Center for Environmental Research at Hornsby Bend



MISSION

Urban Ecology and Sustainability

- Community
- Education
- Research

PARTNERS

- Austin Water Utility
- University of Texas
- Texas A&M University

RESEARCH AREAS

- Soil Ecology, Sewage Recycling and Reuse
- Hydrogeology of the Alluvial Aquifer
- Riparian Ecology and Restoration
- Avian Ecology



50 YEARS OF BIRDING



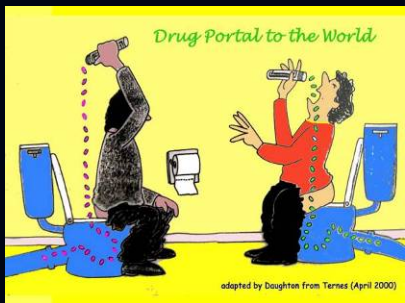
AUSTIN TEXAS
Hornsby Bend
1959 2009

Center for Environmental Research at Hornsby Bend



RESEARCH AREA

- Soil Ecology, Sewage Recycling and Reuse



RESEARCH AREA

- Avian Ecology



Hornsby Bend Bird Observatory
2009 Monthly Bird Survey Data
 Order available monthly survey data:
 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009

Most recent survey:
 The April monthly survey on April 11th featured an energetic crew of birders who were rewarded with a nice variety of birds (113 species) throughout the day. Frustrated participants in the morning covered all areas and found 113 species while working thru overcast skies and cooler than expected temperatures. I remained on the property all day and then was joined in the afternoon session by one other birder and we were able to add a few additions (Downy Woodpecker, Sandpiper, 2 Barned Oats, Summer Tanager) to the morning list before getting interrupted by a brief downpour that cut our Phalt Lane/River Trail walk a bit short.

The change of seasons was noted with a few of our winter residents nesting or totally lower in numbers, contrasting with the rise in numbers/variety of migrating shorebirds and several newly-arrived summer residents. There were no insect care finds but highlights would have to include: 18 Neotropical Cormorants, 2 Barn Oat, plus a surprising Winter Wren and Spotted Towhee.

The complete list follows.
 Bill Gonsky

50 YEARS OF BIRDING



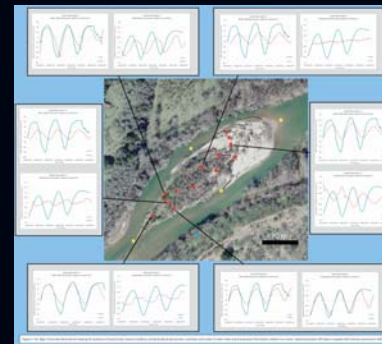
AUSTIN TEXAS
Hornsby Bend
 1959 2009

RESEARCH AREA

- Hydrogeology of the River and Alluvial Aquifer



Dr. Bayani Cardenas and Dr. Jack Sharp



HYDROLOGICAL PROCESSES
 (River Process) 12005
 Published online in Wiley InterScience
 DOI: 10.1002/hyp.1754

Impact of dam operations on hyporheic exchange in the riparian zone of a regulated river

Anthey Hicks Sawyer,^{1*} M. Bayani Cardenas,² Ashleigh Bomar,² and Meredith Mackey²

¹ Department of Geological Sciences, University of Iowa, Austin, TX, USA
² Elbert National Science Program, University of Iowa, Austin, TX, USA

Abstract:

Dam operations commonly cause large, frequent fluctuations in river stage, which persist for long distances downstream. The stage fluctuations force river water into and out of the banks, shifting lateral hyporheic exchange paths. To evaluate the pervasiveness and rates of dam-induced hyporheic exchange, we measured water table elevation, temperature, and specific conductivity along a transect perpendicular to the Colorado River (Austin, Texas, USA), 15 km downstream of the Longhorn dam. Stage fluctuates daily by almost a meter. The daily hyporheic exchange volume per meter of bank is 1.0 m³. Dam-induced hyporheic exchange penetrates several meters into the riparian aquifer, while water table fluctuations propagate 70 m into the riparian aquifer. Water chemistry and temperature fluctuate near the channel in response to the flow oscillations. In the absence of dam operations, groundwater would flow steadily through the riparian aquifer towards the river, laterally limiting hyporheic exchange and stabilizing temperature and water chemistry near the channel. Therefore, dam operations fundamentally change the hydrological, thermal, and geochemical dynamics of riparian aquifers and their hyporheic zones. Copyright © 2008 John Wiley & Sons, Ltd.

RESEARCH AREA

- Riparian Ecology and Restoration

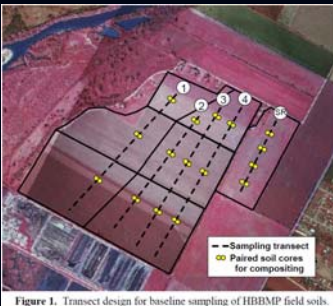
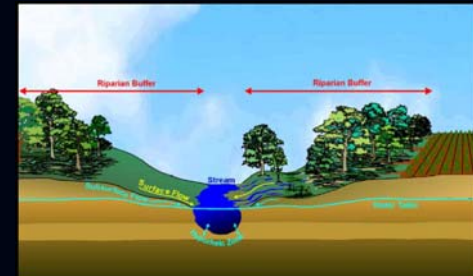


Figure 1. Transect design for baseline sampling of HBBMP field soils.





Center for Environmental Research at Hornsby Bend



AWU-CER Lunchtime Lectures May - August 2011

Each talk begins AT NOON Waller Center [625 East 10th Street – between I-35 and Red River] Room 104

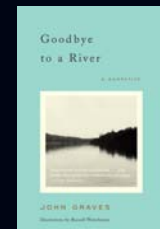
The 1st Wednesday of the Month! Free and Open to the Public – bring a lunch and learn

Rivers: Myth, Meaning and Culture in America

Over the next four months, I will put on my Cultural Geographer's hat and draw on my English major to look at the meaning of rivers and waterways in American and Texan literature. The four lectures will descend in scale from an overview of American rivers and American literature to Texas and finally to Austin. Join me for a journey down rivers through literature, the first Wednesday of every month.

May 4 Noon-1pm

The Myth of the River: American Rivers and American Art



June 1 Monday Noon-1pm

Texas Rivers: On the Brazos with John Graves and "Goodbye to a River"

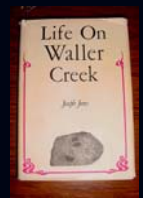
July 6 Monday Noon-1pm

Texas Rivers: On the Colorado with Roy Bedichek and "Karankaway Country"



August 3 Monday Noon-1pm

Life On Waller Creek – The Legacy of Joseph Jones

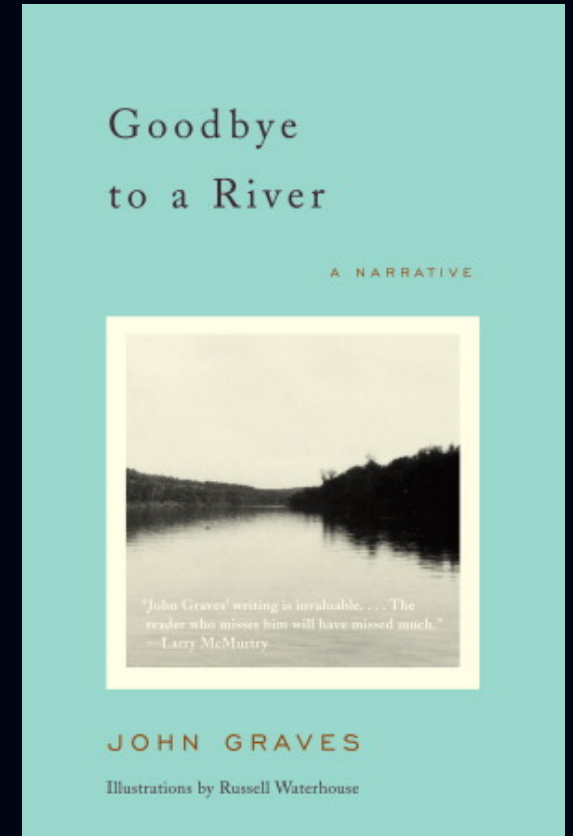
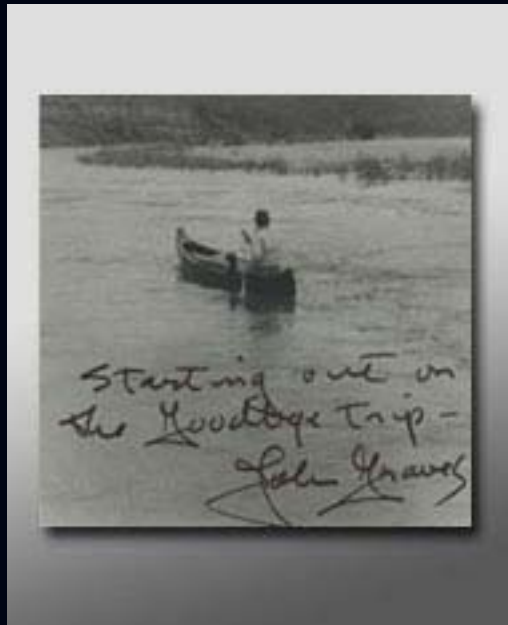


Texas Rivers:

On the Brazos with John Graves and *Goodbye to a River*

Kevin M. Anderson

Austin Water Utility Center for Environmental Research



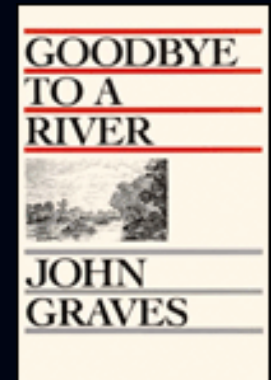
Questions raised by *Goodbye to a River*

Literary Questions

- What kind of book? Nature Writing? History? Ethnography? Fiction? Cultural Geography?
- What are John Graves characteristics as a writer?

River Questions

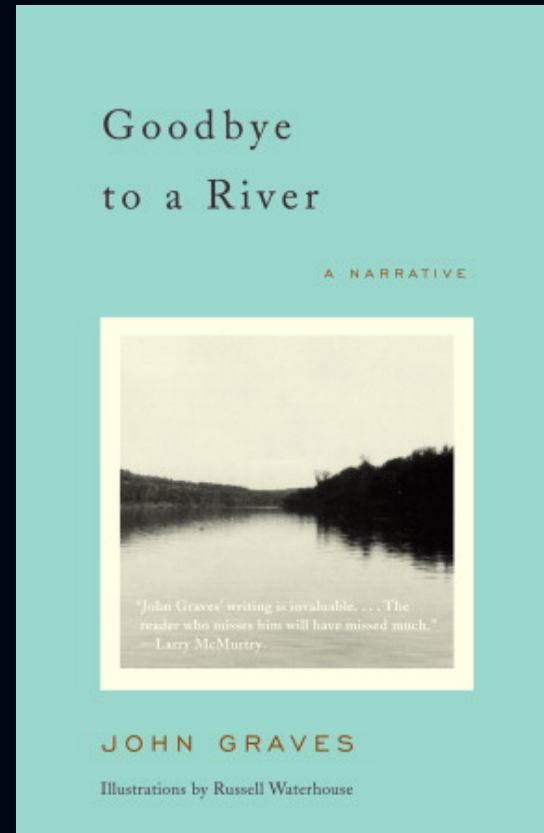
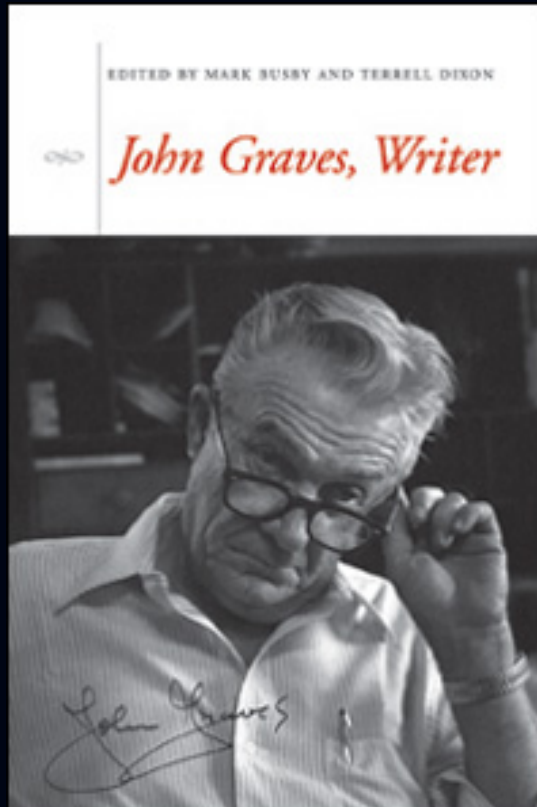
- What does it mean to know a river?
- Epistemology – is there a best or privileged type of knowledge of a river?
 - Scientific, Historical, Political
- What does a river mean to a person? Community? Culture?
- What are the implications for Texas river management?

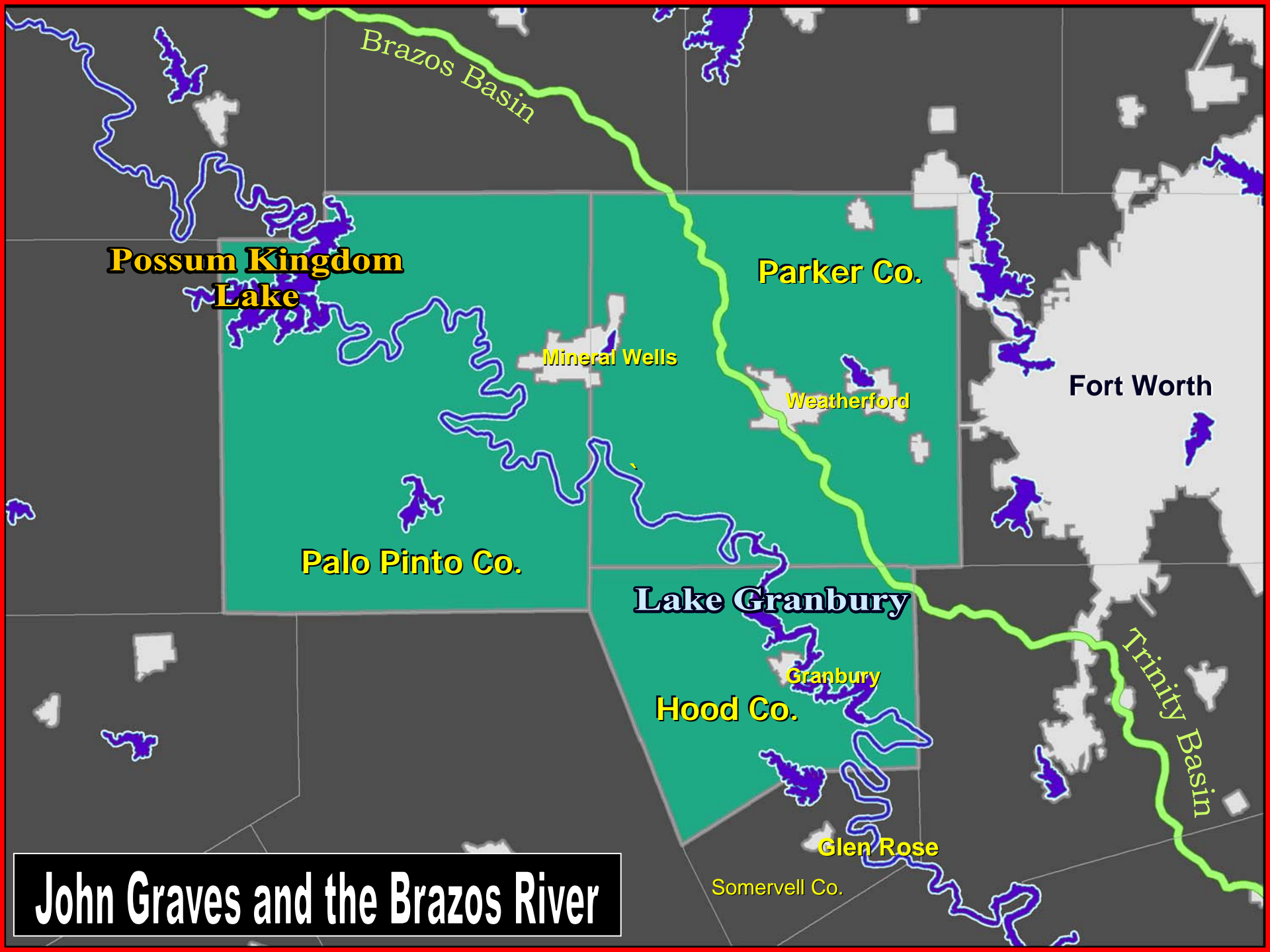


John Graves first major book, *Goodbye to a River* (1960).

The book attracted national attention and critical praise for its original style.

It won the Carr P. Collins Award of the Texas Institute of Letters in 1961 and was nominated for a National Book Award that year.





Brazos Basin

**Possum Kingdom
Lake**

Parker Co.

Mineral Wells

Weatherford

Fort Worth

Palo Pinto Co.

Lake Granbury

Hood Co.

Granbury

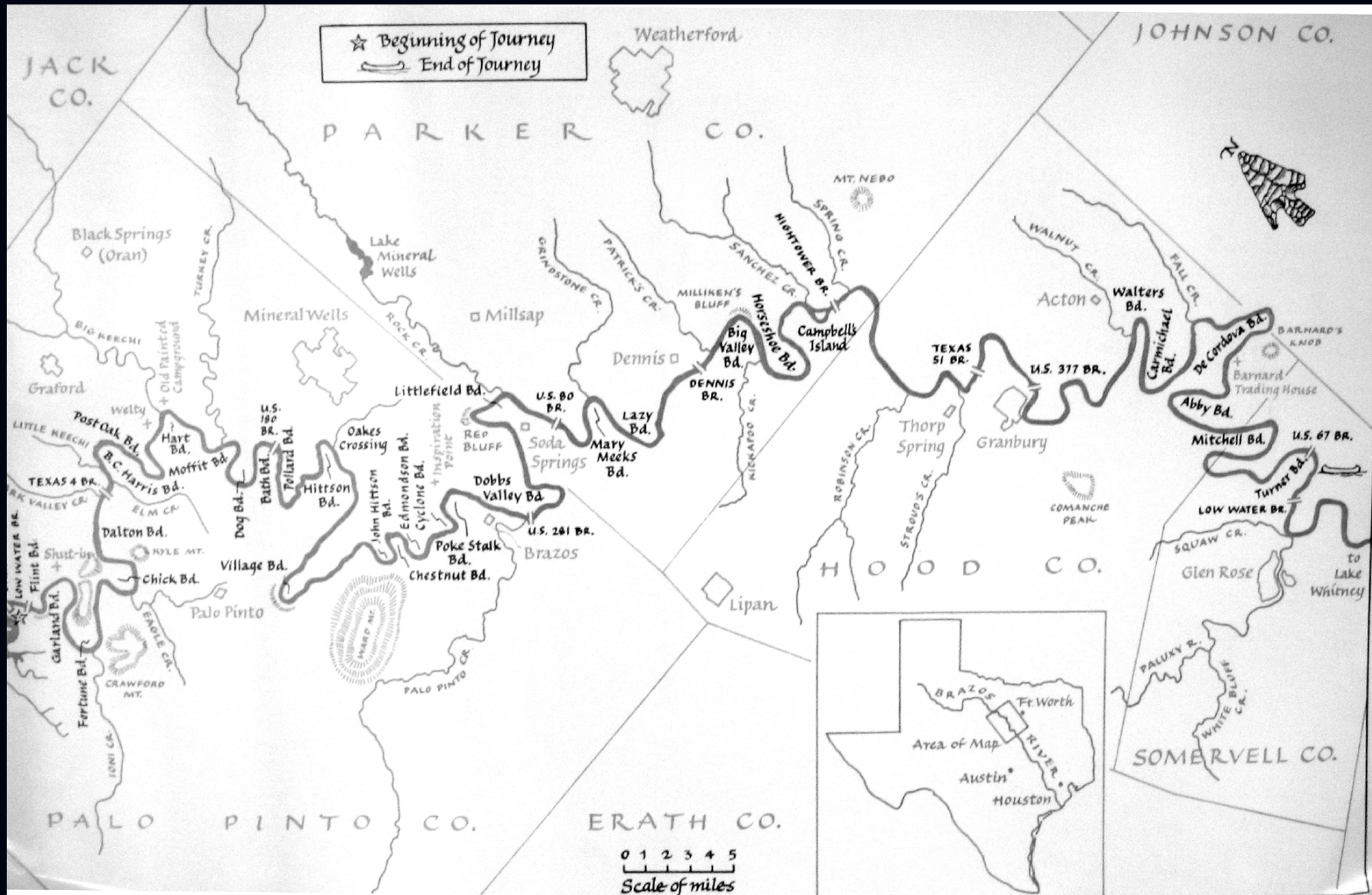
Glen Rose

Somervell Co.

Trinity Basin

John Graves and the Brazos River

A three week trip down the Brazos River in November 1957

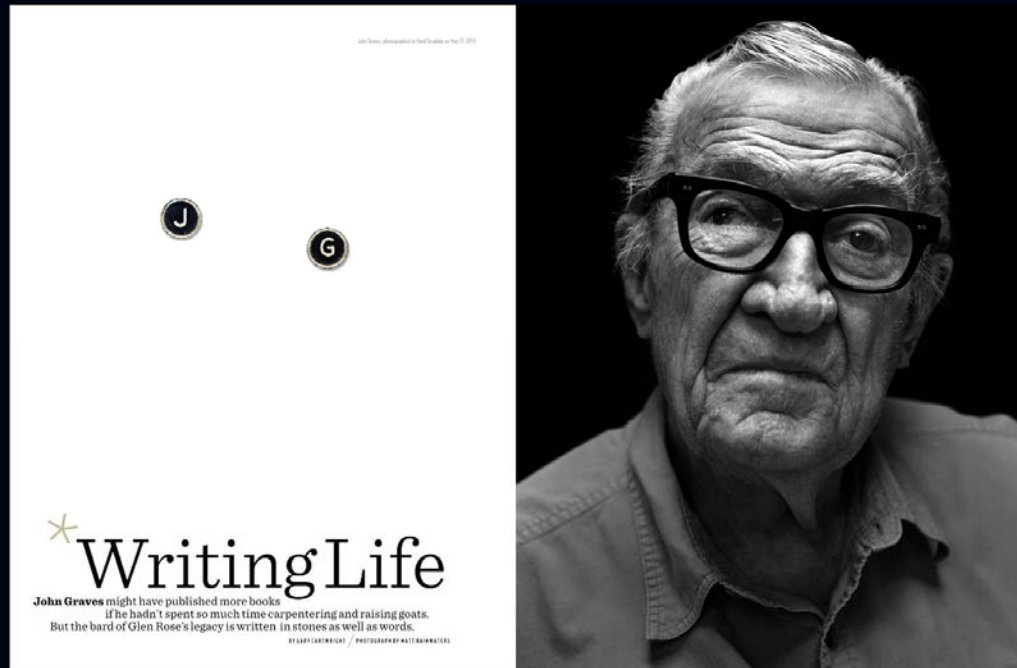


Literary Questions

What kind of book?

- Nature Writing?
- History?
- Ethnography?
- Fiction?
- Cultural Geography?

What are John Graves characteristics as a writer?



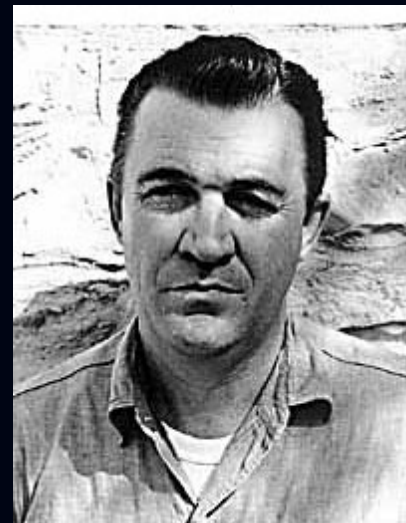
Biography

Born August 6, 1920 in Fort Worth, Texas, John Alexander Graves III grew up in that city until moving away to attend college in 1938.

He graduated from Rice Institute (now Rice University) with a B.A. in English in 1942, then entered the Marine Corps and served in the Pacific theater until being wounded by a Japanese grenade on the island of Saipan.

After the service, Graves traveled to Mexico for a few months then attended Columbia University, earning an M.A. in English from there in 1948.

He began his professional writing career while still a graduate student by publishing a short story, titled "Quarry," in *The New Yorker* in 1947.



Graves taught English from 1948 to 1950 at The University of Texas at Austin, but left academia and Texas behind to spend a year freelance writing in New York City.

From January 1953 to July 1955 he spent abroad, living mostly in Spain, including the Canary Islands for some months on a resident colony of writers and artists.

During these years he wrote articles for publications like *Holiday* and *Town and Country* but also worked on fiction, including a semi-autobiographical novel, *The Spotted Horse*.

Graves concentrated on finishing the novel after returning to the United States, but his agent rejected the final manuscript and Graves soon came to realize the novel was not publishable as a whole.

JOHN GRAVES



Myself and Strangers

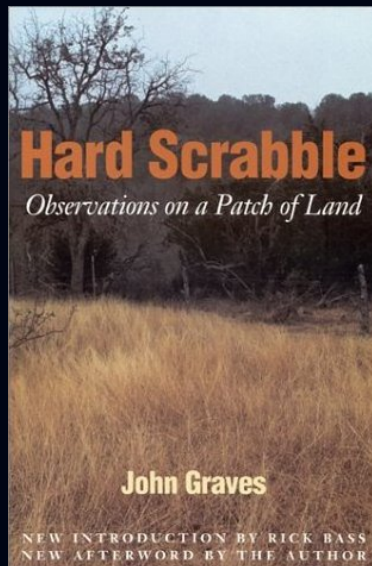
A MEMOIR OF APPRENTICESHIP

In the spring of 1957 Graves returned home to help care for his gravely ill father. In November of that year, Graves completed a three-week canoe trip down part of the Brazos River that he feared was about to be changed forever by dams.

His narrative chronicle of the trip was first published as a magazine article in *Holiday*, and later Graves added history, philosophy and folklore which resulted in his first major book, *Goodbye to a River* (1960). The book attracted national attention and critical praise for its original style.

In the meantime, Graves took a teaching job at Texas Christian University, married Jane Cole.

And he purchased the first of his limestone acres in Somervell County near the town of Glen Rose.



What are John Graves characteristics as a writer?

The Plaintive Sage of Glen Rose

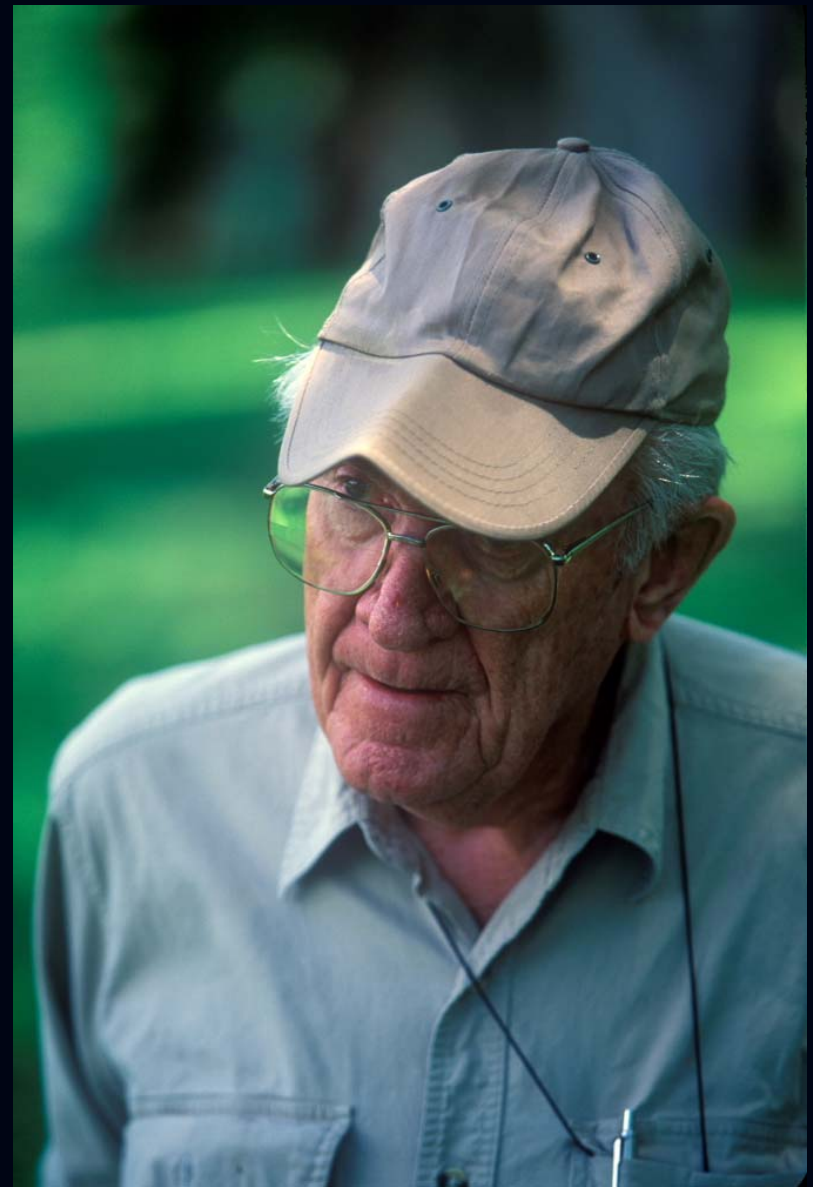
In an insightful observation of Graves' style in 1981, Larry McMurtry, who taught with Graves at TCU in the early 1960s, points out that,

“Certainly, he is not looking forward to becoming the Sage of Glen Rose.”

“The persona he adopts most frequently is that of the man who considers. He may choose to consider a goat, a book, an anecdote, or some vagary of nature, but the process of considering is more important to the texture of his books than any conclusions that may get drawn.”

- Larry McMurtry in the Texas Observer in 1981

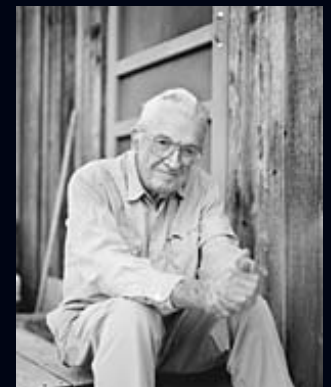
A plaintive texture to his writing



"one of his most frequent rhetorical devices ... is to undercut himself: questioning a story he has just retold, doubting an observation he has just made, twisting out from under a position. Often he simply reverses his field and abandons whatever line of thought he has been pursuing"

- Larry McMurry in the Texas Observer in 1981

I used to be suspicious of the kind of writing where characters are smitten by correct quotations at appropriate moments. I still am, but not as much. Things do pop out clearly in your head, alone, when the upper layers of your mind are unmisted by much talk with other men. Odd bits and scraps and thoughts and phrases from all your life and all your reading keep boiling up to view like grains of rice in a pot on the fire. Sometimes they even make sense... 51



What kind of book?

Nature Writing, History, Ethnography, Fiction?

Cultural Geography?

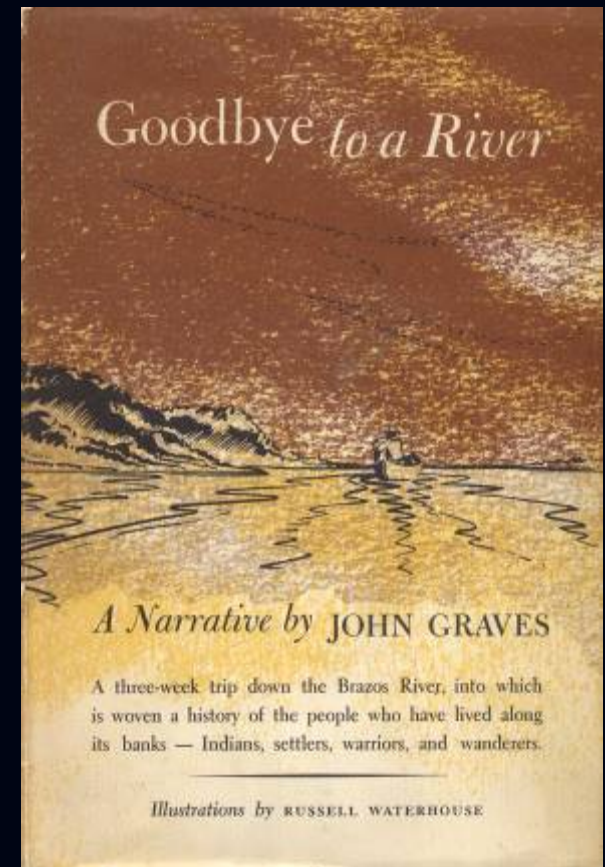
“a mistiness to the telling”

“A Narrative by John Graves”

A travel tale...

A Quest for self-understanding

(“Saint Henry” – on the Concord River)



The Sage of Glen Rose – Characteristics of Graves Style

- Considering rather than Concluding – “mulling over”
- Self Understanding and Doubt
- Complexity of Context
- Mystery
- Plaintive
- Local
- Place
- Shadowed writing



In recent decades it has become customary, and right I guess, and easy enough with hindsight, to damn the ancestral frame of mind that ravaged the world so fully and so soon. What I myself seem to damn mainly though, is just not having seen it. Without any virtuous hindsight I would likely have helped in the ravaging as did even most of those who loved it best.

But God! To have viewed it entire, the soul and guts of what we had and gone forever now, except in books and such poignant remnants as small swift birds that journey to and from the distant Argentine, and call at night in the sky.

- From *Self Portrait, with Birds: Some Semi-Ornithological Recollections* (1991)

Quest for self understanding

His People – His Texas

Mankind is one thing; a man's self is another. What that self is tangles itself knottily with what his people were, and what they came out of. Mine came out of Texas, as did I.

If those were louts, they were my own louts. 144



His People – His Texas

“His Texas is neither the Texas of ranching and cowboys, nor the Texas of oil town and wildcatters, nor the urban and suburban Texas we see growing rapidly about us today. His is the difficult, unromantic, and largely unheralded agrarian Texas of small farms nursed along with great labor and difficulty by tough, generally poor farmers and other rural folk whose lives are deeply meaningful to John.”

The Uncertain Sage by Gregory Curtis – Texas Monthly March 1994

The hills are not rich country, not since the old ones cottoned out the flat places and grazed out the slopes, and the topsoil went on down the Brazos, and the cedar moved in thick and sullen, letting nothing grow beneath it. That happened so long ago that a whole, spare, organic way of life has had time to grow up around the cedar itself, and even in the thirties only a few ancients recollected scraps of the brief richer time. 86



A Shadowed Book

Shadow of violence and war

- The People – Comanches and the blood soaked Texas 19th Century frontier
- His ancestral kin – Anglo settlers – my own louts – and their violence
- World War II



Shadowed by the Texas frontier culture

Calvinistic fundamentalism and its joined opposite, violent wallowing sin, settled that part of the world, and have flourished there since like bacteria in the yolk of an egg. 178

The were the cutting edge of a people whetted sharp to go places, to wear things out and move on, to take over and to use and to discard. 48



Shadowed Inheritance

Neither a land nor a people ever starts over clean.

Country is compact of all its past disasters and strokes of luck—of flood and drouth, of the caprices of glaciers and sea winds, of misuse and disuse and greed and ignorance and wisdom—and though you may doze away the cedar and coax back bluestem and mesquite grass and side-oats grama, you're not going to manhandle it into anything entirely new.

It's limited by what it has been, by what's happened to it. And a people, until that time when it's uprooted and scattered and so mixed with other peoples that it has in fact perished, is much the same in this as land. It inherits. 237



Shadowed by economic violence and dislocation

Dust Bowl times to the factory work and urban growth of the 1950's which marginalized worn-out agricultural Texas.

Passing of old ways and local knowledge in the 1950s

- Cedar cutting and moonshine stills
- The “ser sta gro” shops
- The weekend/absentee owners



Shadowed by hunting and killing – sportsmanship, guns

Sport was not a main reason for this trip, but if, during most of your life, your given reason for going out of doors has been to hunt and to fish, then even after you know that the real reason is different, a faint compulsion toward those things remains like a consciousness of sin...Saint Henry David Thoreau, incisive moral anthropomorphist that he was, implied that blood sports were for juveniles, not men, and was conceivably right. Prince Ernest Hemingway implies the opposite... 54

Hunting and fishing are the old old entry points into nature for men, and not bad ones either, but as standardly practiced these days, for the climactic ejaculation of city tensions, they don't go very deep. They aren't thoughtful; they hold themselves too straightly to their purpose. 158



Shadowed by pessimism about the future of the land

One waxes pessimistic? Not so much...

There is a pessimism about land which, after it has been with you a long time, become merely factual. Men increase; country suffers. Though I sign up with organizations that oppose the process, I sign without great hope...

Islands of wildlife and native flora may be saved, as they should be, but the big, sloppy, rich, teeming spraddle will go. It always has. 58



Shadows offset by Language and Narrative

That afternoon I got only to Eagle Creek, still probing uncourageously against weather's ire. Rounded gray-stone cliffs stand beside the creek mouth; in the river itself massive, split-away, rhombic blocks twist and slow the green current of a long pool. Big oaks gone red, and yellowed ashes rose precariously from slanted alluvial soil beneath the cliffs, piles of drift against their boles in prophecy of their own fate; it is on the outside tip of a bend, and in those places the river lays down rich sediment for maybe centuries and then in a fit of angry spate cuts under it and carries it away, trees and all. ...A canyon wren was singing there; one always is. They love high rocks above water, and the wild falling song itself is like a cascade. 41



Passenger – the Daschund

...the passenger gobbled the drumsticks and organs I'd half roasted for him, and when I unrolled the sleeping bag inside the tent he fought to be first into it.

Later, in half-sleep, I heard a rattle of dirty metal dishes beside the fire. I shot the flashlight's beam out there and a sage, masked face stared at me, indignant. Foreseeing sport, I hauled the pup up for a look. He blinked, warm and full, and dug in his toes against ejection into the cold air, and when I let him go he burrowed all the way down beside my feet, not a practical dog and not ashamed of it, either. The coon went away.

Later still, the goosefeathers began their emetic work and I woke to the rhythmic *wump, wump, wump* that in dogs precedes a heave. Though the account of it may lack wide interest, later it seemed to me that there had been heroic coordination in the way I came out of sleep and grabbed him, holding his jaws shut with one hand while I fought to find the bag's zipper with the other, then fought to find and loose the zipper of the tent, too, and hurled him out into the night by his nose. He stayed there for a while, and when I was sure he'd finished I let him back in, low-eared and shivering, but I preferred his unhappiness to what might have been.

It came to me then who it was that had slept with a dog for his health. Leopold Bloom's father. The dog's name had been...Athos! Old Man Bloom had slept with Athos to cure his aches and pains.

One can get pretty literary on islands.

River Questions

What does it mean to know a river?

Epistemology – is there a best or privileged type of knowledge of a river? Scientific, Historic, Political

What does a river mean to a person? Community? Culture?

What are the implications for Texas river management?



Can we know a river? What is it to “know” a river?

[a philosopher/geographer’s question – riverine epistemology]

A whole river is mountain country and hill country and flat country and swamp and delta country, is rock bottom and sand bottom and week bottom and mud bottom, is blue, green, red, clear, brown, wide, narrow, fast, slow, clean, and filthy water, is all kinds of trees and grasses and all the breeds of animals and birds and men that pertain and have ever pertained to its changing shores, is a thousand differing and not compatible things in-between that point where enough of the highland drainlets have trickled together to form it, and the wide, flat, probably desolate place where it discharges itself into the salt of the sea. It is also an entity, one of the real wholes, but to feel the whole is hard because to know it is harder still. 4



Knowing a place

Really knowing, I mean – from childhood up and continuously, with all of it a flavor in you...Not just being able to make a little seem a lot; there is enough of that around. I can give you as much book data about the home life of the yellow-breasted chat as the next man can. Nor do I mean vague mystic feeling of unity with Comanche and Neanderthal as one wanders the depleted land, gun at the ready, a part of the long flow of man's hunting compulsion. I mean knowing.

So that what one does in time, arriving a bit late at an awareness of the swindling he got – from no one, from the times – is to make up the shortage as best he may, to try to tie it all together for himself by reading and adult poking. But adult poking is never worth a quarter as much as kid poking, not in those real terms. There's never the time for that whole interest later, or ever quite the pure and subcutaneous receptiveness, either. 160



The Brazos River Today – The Legacy of John Graves

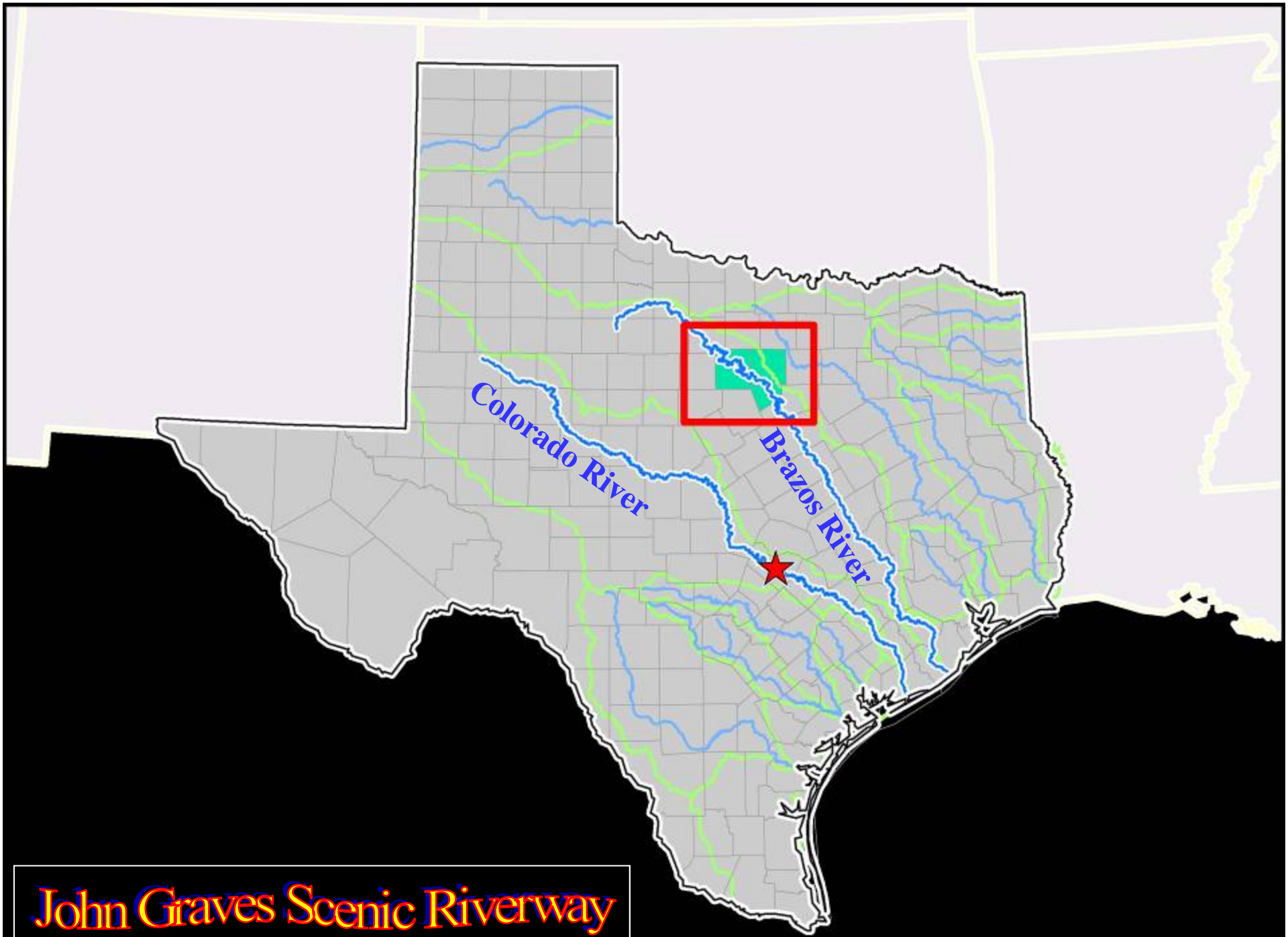


The John Graves Scenic Riverway created in 2005 protects the Brazos River from **mining and quarrying** activities in the proximity of the beds, bottoms, and banks of the river:

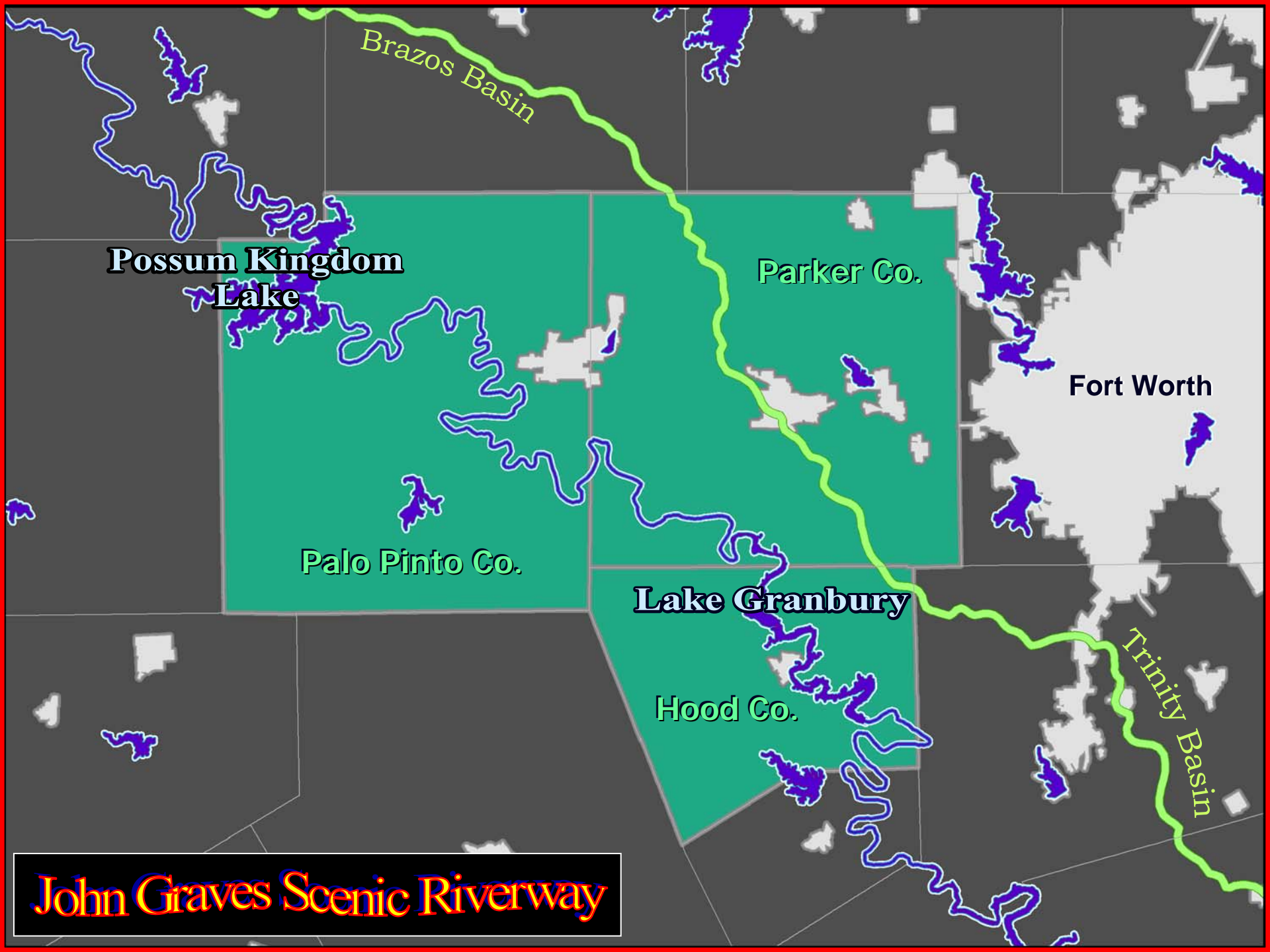
- Prohibits new quarries or expansion of existing quarries **within 1,500 feet** of the protected reach.
- TCEQ must authorize quarries between 200 and 1,500 feet of a water body following an exhaustive review of potential impacts.

* Between Possum Kingdom Reservoir in Palo Pinto and Parker Counties.





John Graves Scenic Riverway



Brazos Basin

**Possum Kingdom
Lake**

Parker Co.

Fort Worth

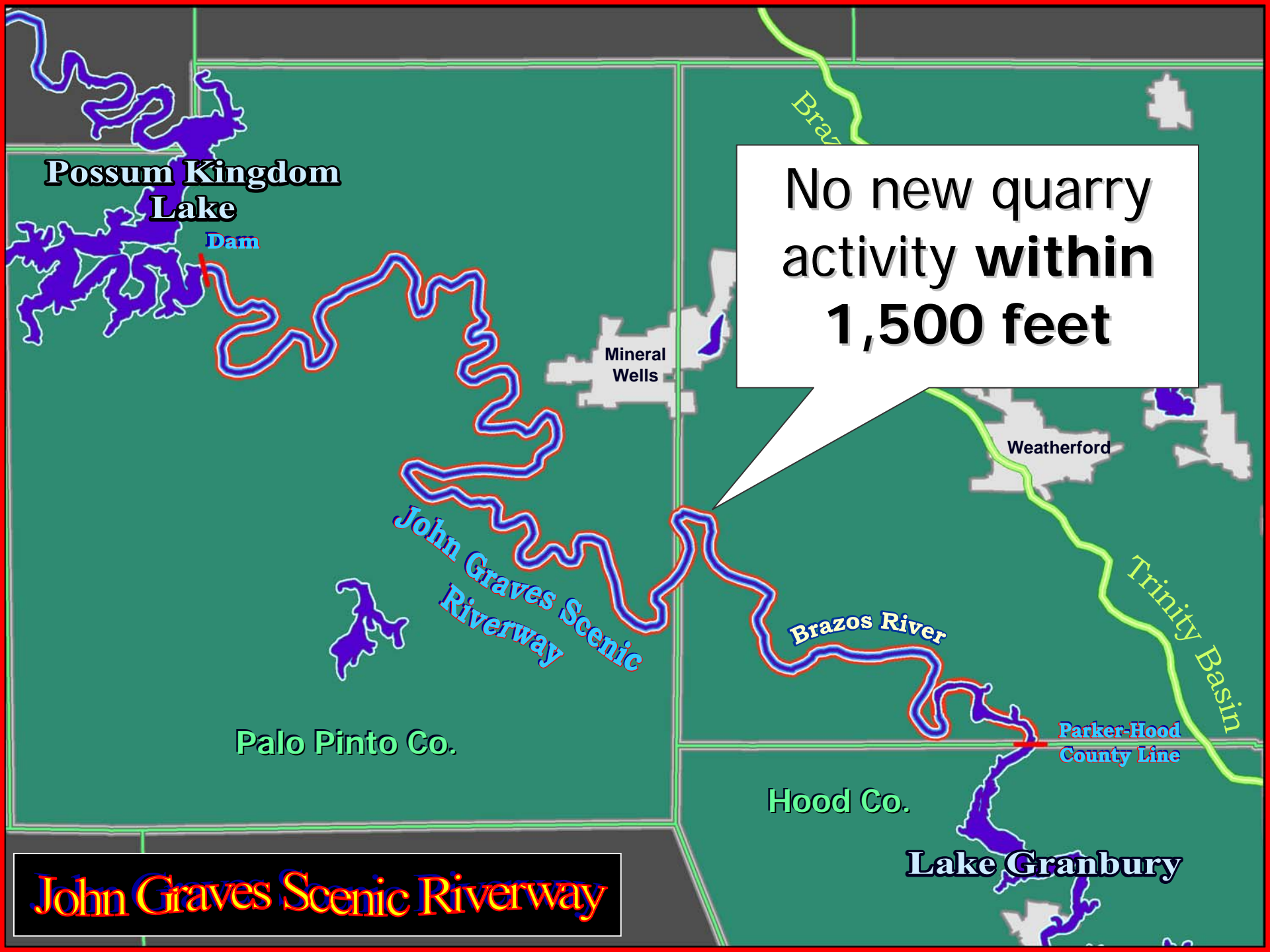
Palo Pinto Co.

Lake Granbury

Hood Co.

Trinity Basin

John Graves Scenic Riverway



**Possum Kingdom
Lake**

Dam

**Mineral
Wells**

**John Graves Scenic
Riverway**

Palo Pinto Co.

Brazos River

Weatherford

Trinity Basin

**Parker-Hood
County Line**

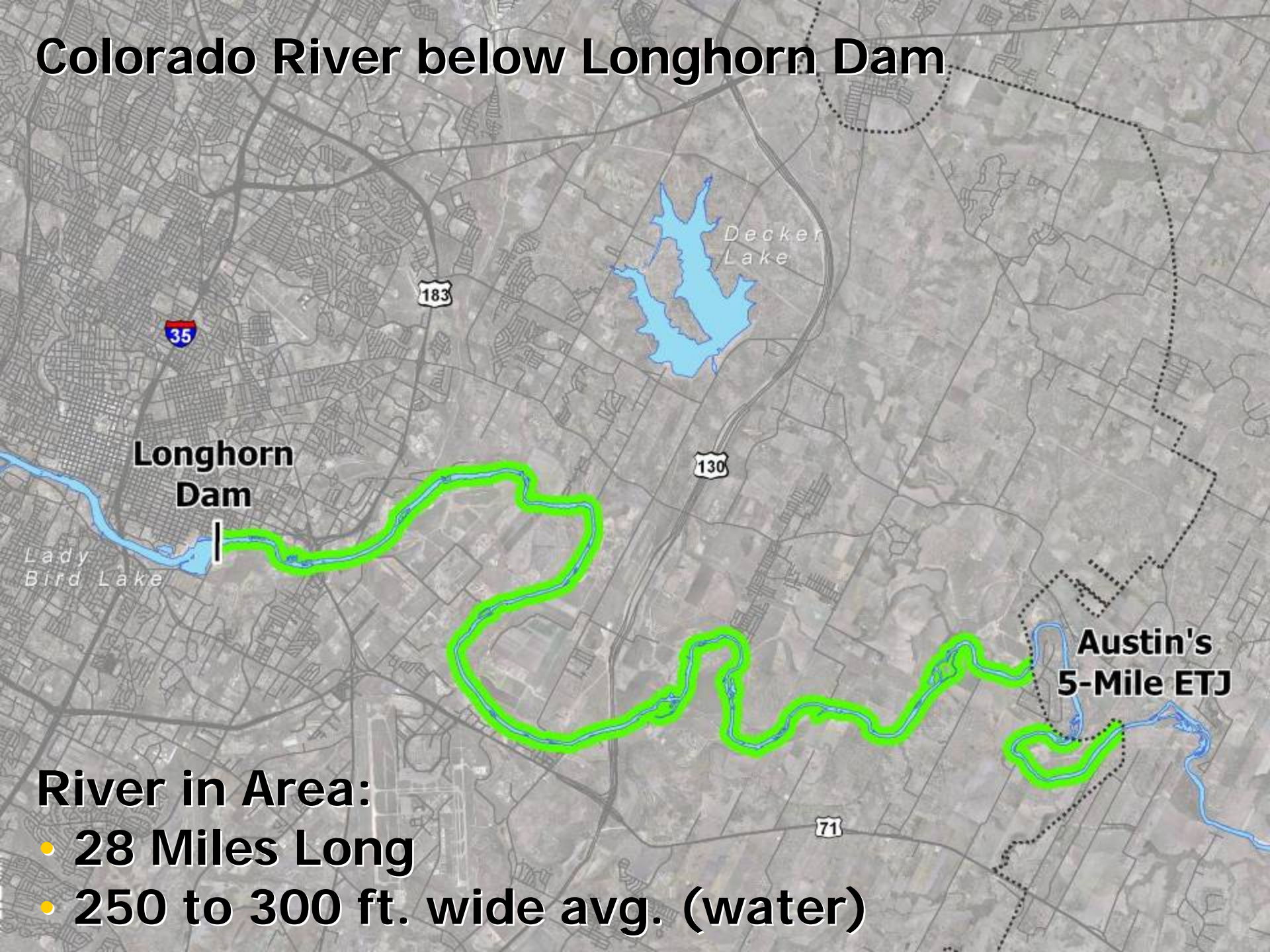
Hood Co.

Lake Granbury

**No new quarry
activity within
1,500 feet**

John Graves Scenic Riverway

Colorado River below Longhorn Dam



**Longhorn
Dam**

Lady
Bird Lake

Decker
Lake

**Austin's
5-Mile ETJ**

River in Area:

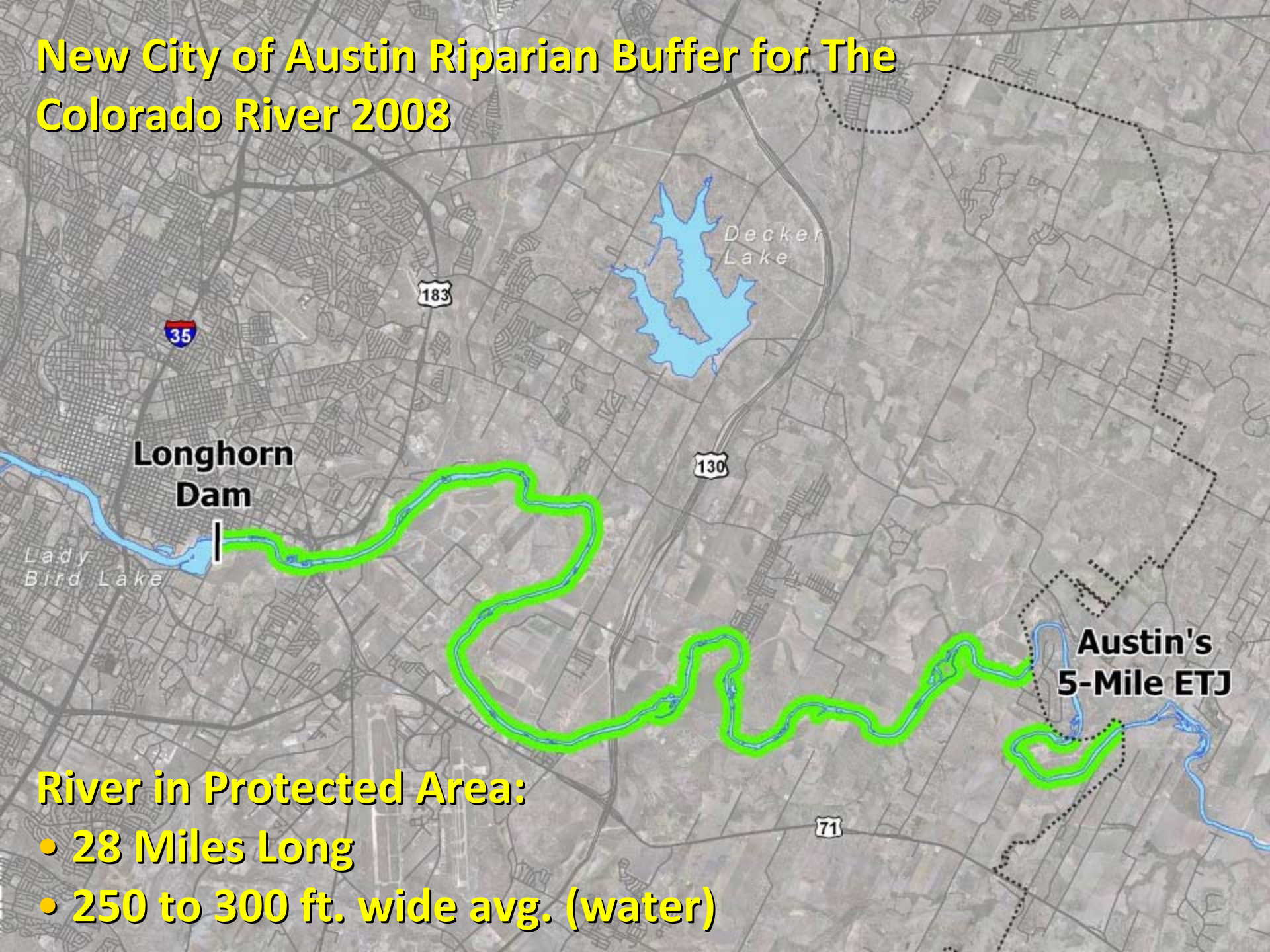
- **28 Miles Long**
- **250 to 300 ft. wide avg. (water)**

City of Austin

Proposal: Adjust Colorado River Buffers

- Set **Critical Water Quality Zone (CWQZ)** starting point of buffer at river's **ordinary high water mark**—not the stream centerline – downriver from Ladybird Lake for 28 miles.
- CWQZ width **200 to 400 feet on land**, depending on 100-year flood plain.

New City of Austin Riparian Buffer for The Colorado River 2008



**Longhorn
Dam**

Lady
Bird Lake

Decker
Lake

**Austin's
5-Mile ETJ**

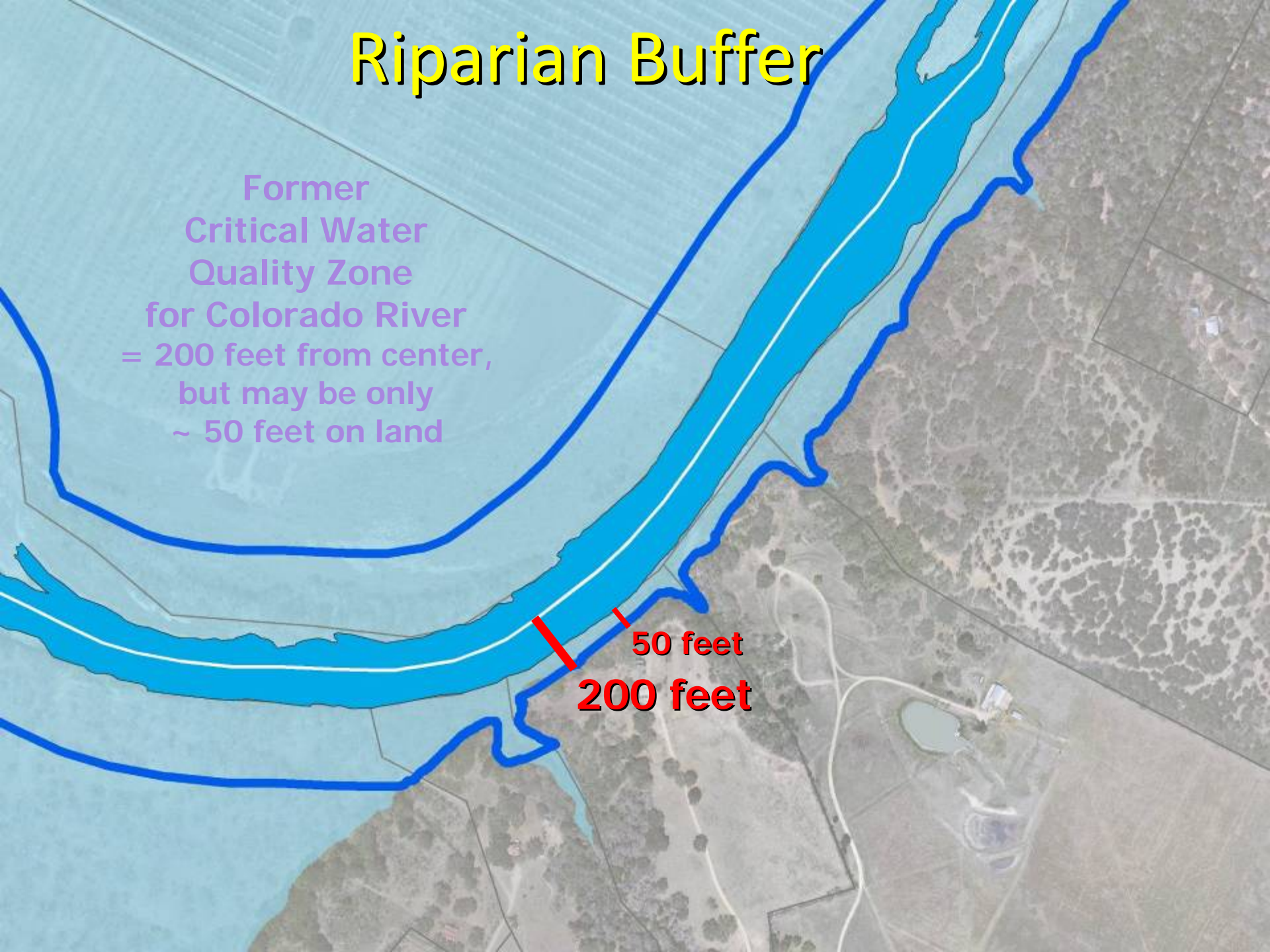
River in Protected Area:

- **28 Miles Long**
- **250 to 300 ft. wide avg. (water)**

Riparian Buffer

Former
Critical Water
Quality Zone
for Colorado River
= 200 feet from center,
but may be only
~ 50 feet on land

50 feet
200 feet



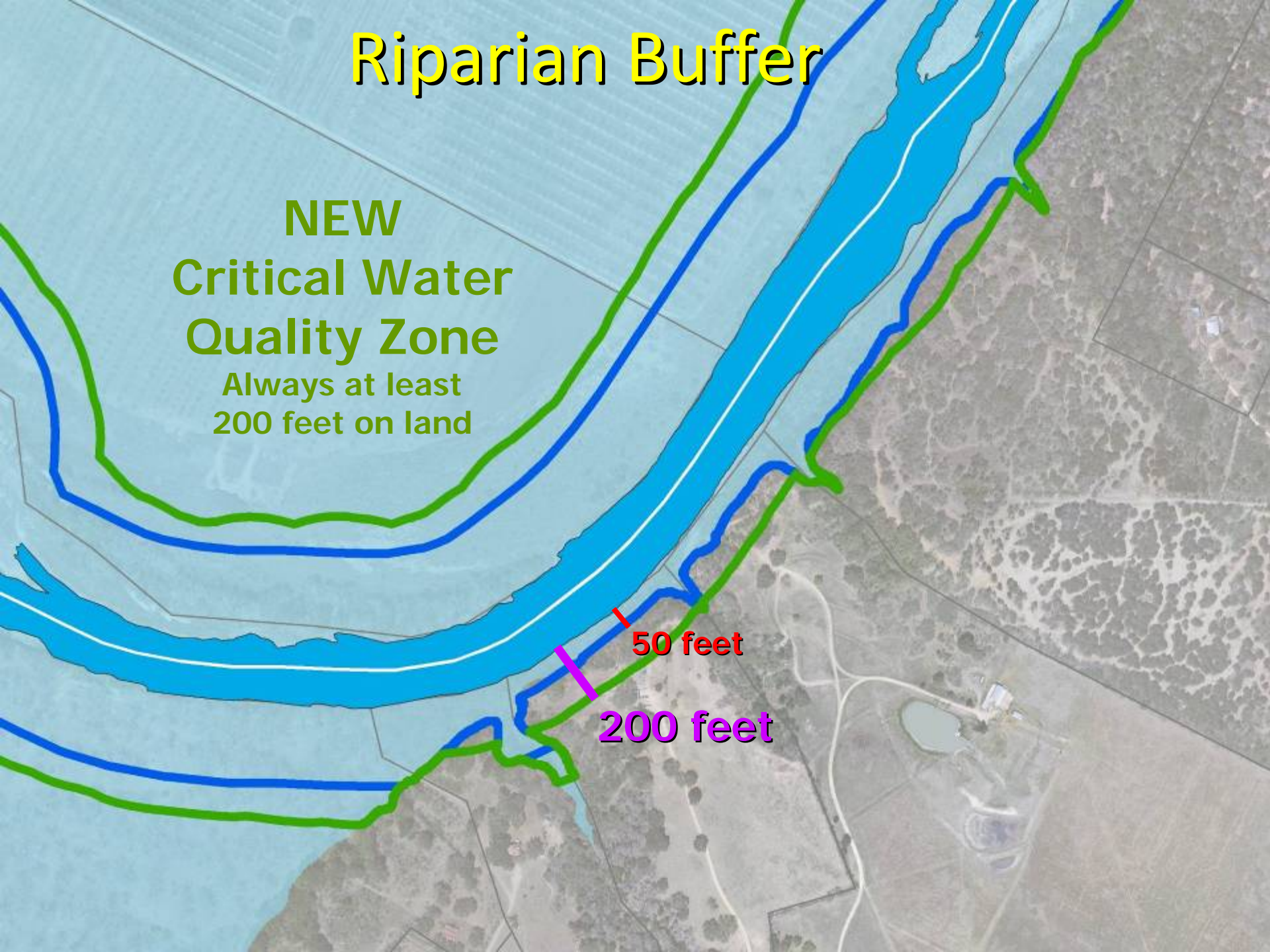
Riparian Buffer

NEW
Critical Water
Quality Zone

Always at least
200 feet on land

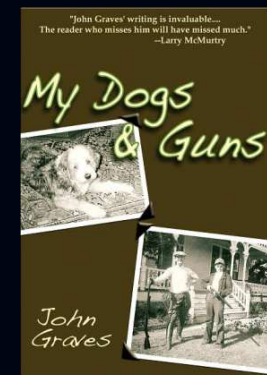
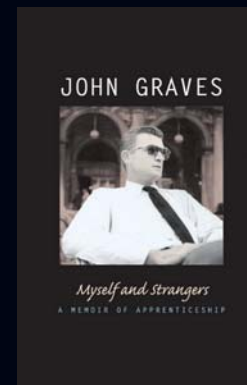
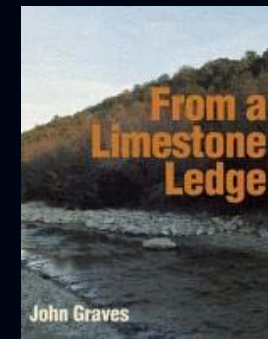
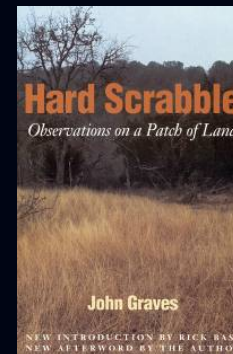
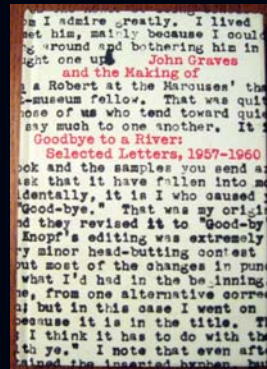
50 feet

200 feet



The Legacy - books by John Graves

- *Hard Scrabble* [1974]
- *From a Limestone Ledge* [1980]
- *Self Portrait, with Birds: Some Semi-Ornithological Recollections* (1991)
- *A John Graves Reader* [1996]
- *John Graves and the Making of Goodbye to a River: Selected Letters, 1957-1960* [2002]
- *Myself and Strangers* [2004]
- *My Dogs and Guns* [2007]



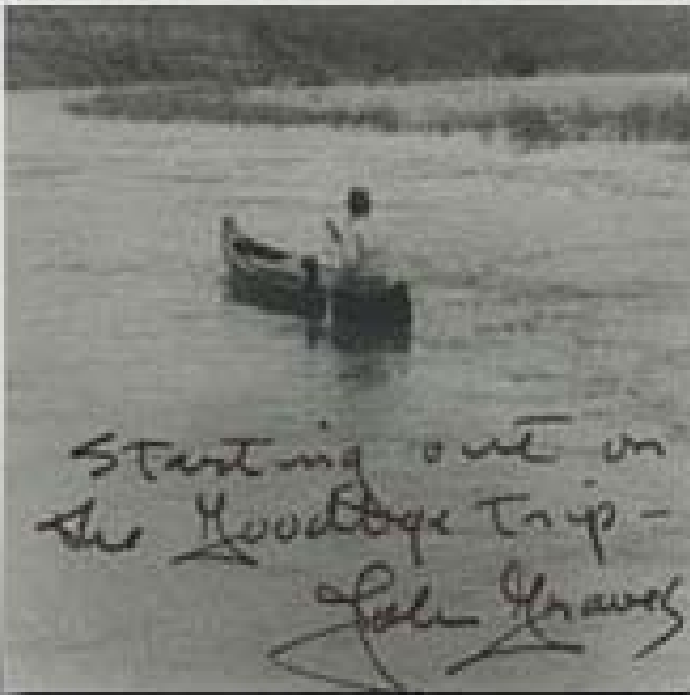
2002



TEXAS RIVERS

by John Graves

Photographs by Wyman Meinzer



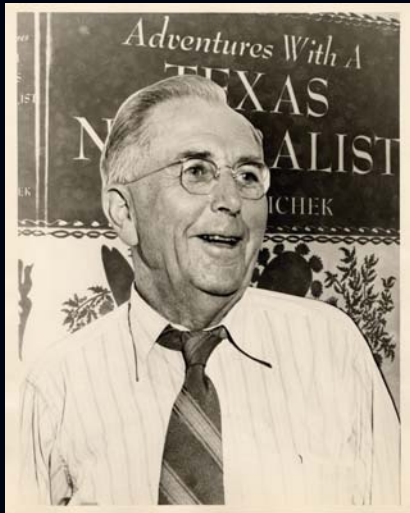
You could go on forever. You know it. Your muscles have gone supple-hard and your hands as crusty as dry rawhide, and your head is cleared, and your boat goes precisely, unstrenuously where and how you want it to go, and all your gear falls into its daily use with thoughtless ease. There is merely not enough river, not enough time...You are spare, bare, and ascetic. You knew Saint Henry, Yankee moralist though he might be, and knew too all those other old loners who'd ever baked their bread by fires in manless places. You knew the sovereign pulse of being.

Or you thought you did... 293



From Myself and Strangers

Journal entry Oct 4, 1955



Reading Bedichek, *Adventures with a Texas Naturalist*. A very pleasant hodgepodge. I suppose all nature writers in English are influenced by the same British models in terms of form – White’s *Selbourne*, Lord Grey, etc. – which in some hands becomes license to have no form at all. Bedichek shares many of my own prejudices against nature-destruction and artificiality, but surely he needs to smile when he says that seeing the vermilion flycatcher for the first time is a major event in one’s life. It might even be true, but the smile would help.

Altogether, however, he is an even-tempered, sadly amused man of intelligence, taking himself a little seriously, but don’t we all?



Center for Environmental Research at Hornsby Bend



AWU-CER Lunchtime Lectures May - August 2011

Each talk begins AT NOON Waller Center [625 East 10th Street – between I-35 and Red River] Room 104

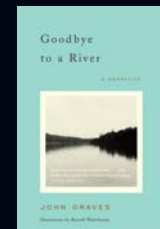
The 1st Wednesday of the Month! Free and Open to the Public – bring a lunch and learn

Rivers: Myth, Meaning and Culture in America

Over the next four months, I will put on my Cultural Geographer's hat and draw on my English major to look at the meaning of rivers and waterways in American and Texan literature. The four lectures will descend in scale from an overview of American rivers and American literature to Texas and finally to Austin. Join me for a journey down rivers through literature, the first Wednesday of every month.

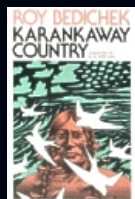
May 4 Noon-1pm

The Myth of the River: American Rivers and American Art



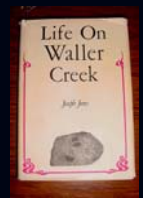
June 1 Monday Noon-1pm

Texas Rivers: On the Brazos with John Graves and "Goodbye to a River"



July 6 Monday Noon-1pm

Texas Rivers: On the Colorado with Roy Bedichek and "Karankaway Country"



August 3 Monday Noon-1pm

Life On Waller Creek – The Legacy of Joseph Jones