

PYLE & ASSOCIATES



413 STAGES ♦ Corpus Christi, Texas 78412
Phone (512) 993-4191 ♦ Fax (512) 993-4191

August 26, 1997



Gary Mauro, Commissioner
General Land Office
1700 North Congress Room 812
Austin, Texas 78701

Attention: C.B. Thomson, Director, Surveying Division

Report on shoreline survey of Lot 1, Section 40, Flour Bluff and Encinal Farm and Garden Tracts, Nueces County, Texas.

Reference Material:

1. Nueces County rolled sketch No. ~~90~~
91
2. Portions of "Water Boundaries" by George M. Cole, P.L.S., now or formerly, President, Florida Engineering Services Corporation, enclosed herewith.

At the time of the original survey of this shoreline, 1983, we had no tidal information, so I asked Herman Forbes, former Surveying Director, to visit the site with me to try and determine where the shoreline should be. He and I along with Clint Summerall, originally with the land office, did visit this site along with 4 or 5 others on the Cayo Del Oso. It was decided to use the offshore side of a particular aquatic vegetation which requires periods of flooding with salt water to grow.

On the current survey we have a Blucher Institute tide gauge at the Naval Air Station so that we can determine mean high water elevation by running a tide gauge at the site and comparing it with the Blucher gauge.

We set up a tide staff and observed the readings from 2:30 P.M., 7-31-97 thru 6:15 P.M., 8-1-97 and found a variation of only 0.04 feet and concluded the Oso was non-tidal at this site.

I then determined the shoreline as described in said George M. Cole's publication. Part of the shoreline is evidenced by a marked change in vegetation, part is evidenced by a low cut bank and one portion is obliterated by concrete poured on the bank to prevent erosion. The line I marked is about 20 feet west of a 6 foot or 8 foot bluff and is east of the line used on the 1983 survey.

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The shoreline as marked is all natural except on the section covered with concrete.

Bearings and coordinates are based on Texas Coordinate System, South Zone, NAD83.

Bearings and coordinates established with G.P.S. equipment by Pyle & Associates, Corpus Christi, Texas.

Signed: _____

George M. Pyle, R.P.L.S., L.S.L.S.





Texas General Land Office
Garry Mauro, Commissioner

Stephen F. Austin Building
1700 North Congress Avenue
Austin, Texas 78701-1495
(512) 463-5001

C. B. Thomson
Director of Surveying
Asset Management Division
(512) 463-5212
Fax (512) 463-5098

August 29, 1997

Mr. George Pyle
Pyle & Associates
413 Stages
Corpus Christi, TX 78412

Dear ~~Mr. Pyle:~~ *George*

Your survey plat of the shoreline fronting Lots 1 through 5, Section 40, Flour Bluff and Encinal Farm and Garden Tracts, Nueces County, has been accepted for filing in the Rolled Sketch Files of the Texas General Land Office.

This plat has been filed as Nueces County Rolled Sketch No. 124. Your report and its attendant exhibits have been filed as Nueces County Sketch File No. 74.

You refer to a previous submission covering the same area as Nueces County Rolled Sketch No. 90. We find the sketch you refer to is actually Nueces County Rolled Sketch No. 91. You may wish to check your records regarding this.

If we can be of further assistance to you, please let us know.

Sincerely,

C. B. Thomson

C. B. Thomson
Director of Surveying

CBT/jak

File No. Sketch File 79 A
NUECES County
Filed 8-29 19 97
By GARRY MAURO, Com'r
Douglas Howard

PYLE & ASSOCIATES



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Phone (512) 993-4191 ♦ Fax (512) 993-4191

August 26, 1997



Gary Mauro, Commissioner
General Land Office
1700 North Congress Room 812
Austin, Texas 78701

Attention: C.B. Thomson, Director, Surveying Division

Dear Ben,

I am herewith submitting a shoreline survey of three tracts of land out of Lots 1 thru 5, Section 40, Flour Bluff and Encinal Farm and Garden Tracts, Nueces County, Texas, a map of which is recorded in Volume A, Pages 41, 41 and 43 of the Map Records of Nueces County, Texas.

This survey is a portion of a survey previously submitted to the General Land Office on July 11, 1983 and is filed as Nueces County rolled sketch No. 90. The tract adjoins Cayo Del Oso Tract A. 91

The property is going to be replatted and requires General Land Office approval of the littoral boundary pursuant to The Coastal Public Lands Management Act of 1973, Section 1301, Natural Resources, V.C.T.A..

Sincerely,

George M. Pyle, R.P.L.S., L.S.L.S.

See R1d. SK. 124
File No. ~~Sketch File 79~~
~~NUECES~~
~~8-27~~ 97
By ~~GARY MAURO, Comm~~
~~Douglas Howard~~



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WATER BOUNDARIES

by

George M. Cole, PLS

President, Florida Engineering Services Corporation



LANDMARK ENTERPRISES

10324 Newton Way

Rancho Cordova, California 95670

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Case law in the various coastal states has, in the main, followed the English common and statutory law and its updated definition as put forth in the Borax decision. Sixteen states (Alabama, Alaska, California, Connecticut, Florida, Georgia, Maryland, Mississippi, New Jersey, New York, North Carolina, Oregon, Rhode Island, South Carolina, Texas, and Washington) have followed this course (Maloney and Ausness 1974; Cole 1977). It should be noted that six Atlantic Coast states (Delaware, Maine, Massachusetts, New Hampshire, Pennsylvania, and Virginia) recognize the mean low water line as the sovereign/upland boundary (Maloney and Ausness 1974).

Louisiana also is an exception to the majority with the adoption of the civil law boundary of the line of the highest winter tide as is Hawaii which uses the upper reaches of the wash of the waves (Maloney and Ausness 1974).

It should be further noted that there are numerous exceptions to the above generalized statements, often involving boundaries in Spanish or Mexican grants. For example, Texas case law (*Luttes v. State*) has held "that the line under Spanish (Mexican) law is that of mean higher high tide, as distinguished from the mean high tide of the Anglo-American law". Presumably, the same rule would apply in other states with coastal Spanish grants.

The State of Florida has codified its common law on this subject. The Coastal Mapping Act of 1974 (Chapter 177, Part II, Florida Statutes) declares that "mean high water line along the shores of land immediately bordering on navigable waters is recognized and declared to be the boundary between the foreshore owned by the State in its sovereign capacity and upland subject to private ownership." The Statute also defines the mean high water line using the Borax definition.

1.3 Boundary Definitions in Non-tidal Waters

Legal definition of sovereign/upland boundaries in waters not affected by tides will now be examined. With the lack of the predictable rising and falling found in tidal waters, obviously different definitions will apply.

English common law offers little opinion regarding non-tidal water boundaries. During the period when tidal boundaries were being defined in England, it was assumed that only tidal waters were public domain; perhaps due to the fact that as a small island kingdom, England had few inland waters important for public use. On the other hand, American common law offers considerable opinion on these boundaries.

The leading definition (Maloney 1978) in federal case law, *Howard v. Ingersoll*, gives the following instructions for determining the boundary of such waters:

"This line is to be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual and so long continued in all ordinary years, as to mark upon the soil of the bed a character distinct from that of the banks, in respect to vegetation, as well as in respect to the nature of the soil itself."

Case law in Florida conforms substantially with federal law on this subject. The case of *Tilden v. Smith* illustrates this:

"High-water mark, as a line between a riparian owner and the public, is to be determined by examining the bed and banks, and ascertaining where the presence and action of the water as so common and usual, and so long continued in all ordinary years as to mark upon the soil of the bed a character distinct from that of the banks, in respect to vegetation as well as respects the nature of the soil itself. High-water mark means what its language imports — a water mark."

Traditionally, in non-tidal waters, the courts have allowed the use of botanical and geological evidence, as evidenced by the above decisions, and disallowed the use of mathematical averaging of water levels. This is typified by the court's decision in *Kelly's Creek and N.W.R. Co. v. United States*:

"The high water mark is not to be determined by arithmetical calculation; it is a physical fact to be determined by inspection of the river bank."

Recently, however, there has been an apparent trend to place more reliability on water level records, possibly due to the growing need for the precision, repeatability and lack of ambiguity which results from a mathematical solution. Typical of this are two Florida cases, *U.S. v. Parker* and *U. S. v. Joder Cameron*. The court in the Cameron case found as follows:

"There is no logical reason why a fourth approach to determining the line or ordinary high water may not consist of comparing reliable water stage and elevation data. Indeed, for a body of water whose levels fluctuate considerably with changes in climate, accurate water stage and elevation data may provide the most suitable method for determining the ordinary high water mark."

In addition, a section of the Florida Statutes (Chapter 253.151) specifically requires the consideration of such evidence, when available, in the determination of meandered lake boundaries. This section has been declared unconstitutional by the Florida Supreme Court in *State of Florida et al. v. Florida National Properties, Inc., etc.* However, this finding was not based on any finding of error in the water levels method.

1.4 Which Waters are Sovereign?

An obvious question which arises when one is defining the boundary between sovereign waters and private uplands is "Which waters are sovereign?"

A simplistic answer to the question is "navigable waters". However, that is not an explicit answer since there are almost as many definitions of navigability as there are water bodies. In addition, there appears to be some water bodies which are navigable-in-law although not necessarily navigable-in-fact.

In non-tidal waters, navigability for title purposes generally is a question of navigability-in-fact, although various definitions of navigability-in-fact do appear in case law in the various