FeedBack

On Elevation Matters

BFE	Base Flood Elevation
FEMA	Federal Emergency Management Association
FIRM	Flood Insurance Rate Map
FIS	Flood Insurance Studies
LOMA	Letter of Map Amendment
LOMR-F	Letter of Map Revision Based on Fill
SFHA	Special Flood Hazard Area

I read, with interest, Wendy Lathrop's article "Insure and Regulate–Elevation Matters" [March 2008]. I agree that we, as professionals, need to advise clients about the technical aspects of developing in floodplains. That presumes we have an understanding of regulatory matters, beyond the completion of an Elevation Certificate. And as she observed, we, as a whole, are a long way from that.

I appreciated the example of building below the BFE at locations removed from the SFHA by a LOMR-F. But I can also think of examples where that is true (subterranean flood damage, if not mandated flood insurance) at locations which were never mapped in a SFHA.

I also believe we need to advise clients of the arbitrariness of the selection of the 1% chance annual flood, as well as the concept of a floodway. Fortunately, most municipalities in my area already require a minimum of one and a half feet of freeboard above the BFE for new and "substantially new" construction.

I have been called upon in the past to establish ground elevations to support a LOMA. My county (Snyder County, PA) was recently remapped, and I must say I was thoroughly disappointed with FEMA's effort, both by the illegibility of the FIRMs and the inconsistencies between the FIRM and FIS (tables and profiles). I am presently dealing with that, indirectly (through a municipality).

But my main issue at present is establishing floodway limits. Is there an express permission, or a procedure similar to a LOMA or LOMR-F, by which to establish the horizontal floodway limit based upon the elevations in the FIS, or any method other than scaling the FIRM?

Robert L. Bickhart, PE, PLS
Via the Internet

Lathrop Replies

Thank you for your letter, and for your thoughtful comments regarding additional flood risks not directly addressed by the NFIP. I wholeheartedly agree that there are risks outside of the 1% annual chance floodplain, a risk only partially addressed in FEMA's Technical Bulletin 10-01. That document contains a warning in a big box close to the start of the text noting that it is not only surface floodwaters that affect structural stability, but also saturated soils and groundwater.

Further, you have exactly nailed it about the 1% annual chance event being arbitrary. The creators of the NFIP had to start somewhere, and that was the frequency probability that they chose. In British Columbia, it is the 200-year (0.5% annual chance) flood serving as the trigger for regulation, so in that Canadian province floodplains are regulated a bit more stringently than here in the U.S.

As for location of the floodway limits, the Floodway Data Tables included in the Flood Insurance Study reports for detailed studies include columns of data that specifically state the width of the floodway in feet at the cross-section locations, as well as the regulatory BFE with and without the floodway surcharge. These are the documents I prefer to rely upon, rather than trying to scale from the maps. Perhaps the study reports contain different information for your area, as it may depend upon the age of the study and who the contractor was, prior to some of the current requirements and guidance for flood studies. – *W.L.*

We Tried It, We Liked It!

The July/August 2007 issue included an article by Dr. Kurt Wurm on a new method to recover section corners and quarter corners ["A Revisit to the New Twist in Corner Recovery"]. The method takes the BLM's Geographic Coordinate Data Base data (NAD 27) and converts to NAD 83 in a format that can be downloaded to a handheld GPS together with an estimated error circle radius.

We would like to report that we tried it and really like it. Our first use resulted in finding corners so quickly it just about amounted to driving to the point. It took us longer to adequately describe the monuments in the notes than it did to actually find the corners. We encourage all surveyors looking for BLM corners to try it.

By the way, the output files are easily "dragged and dropped" onto the $20 per year subscription of Google Earth, displaying the point location on the aerial photographs.

Great job by the BLM and Dr. Wurm, Professor of Surveying at New Mexico State University.

Michael Daly, LS
Arrow Surveying
Gallup, NM

More on Property Line Retracements

In the FeedBack column of the March 2008 issue there was a letter titled "Sources of Consternation" by Mr. Jerry Lavender, LS, which was addressed to Wendy Lathrop. In the letter Mr. Lavender states, "*I came across situations where fence lines had been generally accepted as a "the property line" even though the survey indicated that it was encroaching by many feet. These created many sources of consternation for me, particularly when I established a true property line that was encroaching on the adjacent property owner.*" I don't mean jump to conclusions regarding Mr. Lavender's methods, however there may have been less consternation for him, his clients and their neighbors had he kept in mind that retracement surveyors should only be retracing property lines and do not have the authority to "establish" true property lines. These property line retracements should be based on an evaluation of all available evidence including evidence such as improvements, which have been accepted as the property line.

Michael Welling, LS
Manager, Survey & Land Mgmt. Div.
Washington Co. Public Works Dept.
Stillwater, MN

Lavender Replies

No problem, everyone has an opinion. I suppose that you can quibble over semantics as to "true property line" establishment, or "retracement survey", but when a plat has been established and approved by state or county, the surveyor has no choice but to relocate

the "original and accepted platted corners" to the best of his understanding and belief. The surveyor is expected to re-establish these property corners to assure the property owners as to the "true" limits of their boundaries. – *J.L.*

More on the TN/GA Water Dispute

I was born in Georgia, have lived in Georgia most of my life, and am a Georgia registered land surveyor. Surveyor C. Bart Crattie reported in two articles in previous issues of *The American Surveyor* about attempts by certain Georgia legislators to move the northern boundary of the state northward to the "correct" location as defined by statutes and treaty. Such action must end in futility. All of the surveyed boundaries of Georgia are incorrectly located, as most surveyed boundaries of most of the states are. However, the U.S. Supreme Court has repeatedly ruled that if a boundary between two states has been run out, located, and marked on the ground and is afterwards recognized and acquiesced in by the states for many years, that boundary becomes conclusive even if it is later found to be erroneously located. It does not matter that there has never been any official legislative act recognizing the boundary.

Actions held to constitute acquiescence in a boundary so that it becomes binding include surveying the state's public domain up to the erroneously-marked boundary, assessing privately-owned lands up to the erroneously-marked boundary for taxes, publishing official maps recognizing the erroneously-marked boundary, and recognizing the erroneously-marked boundary for delineating police jurisdiction, judicial jurisdiction, voting districts, school districts, legislative districts, and county boundaries.

Every few years a resolution is passed by the Georgia legislature to create a commission to "correct" the boundaries of the state. Once the commission begins work it finds the court rulings described above. The commission then dissolves and that is the end of the matter until the memory of the findings lapse and a new boundary commission is created, only to make the same findings. The result is wasted taxpayers' money.

Georgia has undergone tremendous population growth in recent years. This has strained its resources, especially its water resources. The stated purpose for moving Georgia's boundary northward is so the state can gain access to the Tennessee River and thereby tap that as a water source. I have talked with some of the legislators who supported the resolution. It is clear they understand the effort will come to nothing. Their intention is to make it appear to the voters that they are trying to do something to alleviate the water situation. Once the

resolution was introduced, any legislator who voted against it would have been perceived by most voters, who don't understand the issue, as being insensitive. Thus, most of the members of the legislature felt obliged to support it.

Besides the wasted money, the other material effect is to arouse the hostility of Tennesseans toward us. This may stymie gaining their cooperation in implementing truly worthwhile alternatives. One already sees this anger on the part of Tennesseans in their press and on the Internet.

Since 1861 the Georgia Code has defined the northern boundary of the state as the 35th parallel. The line that had been actually surveyed and demarcated on the ground several decades earlier, and that has been acquiesced in by our state and Tennessee and North Carolina since the early 1800s, is, for most of the length, about half a mile to a mile south of the 35th parallel. The Georgia legislature could do us a greater favor by amending the code to confirm the surveyed line, as well as to correct certain other errors in the code definition of the boundaries of the state. Future legislatures would then be put on notice not to dabble in the matter again.

On page 65 of the Spring 2008 issue of *The American Surveyor,* Crattie states that the issue is putting the spotlight on our profession, and "A land surveyor's words are being heard in a positive way … The 'expert' is the surveyor, not the lawyer or politician." A lawyer will have the final say-so in this matter if the legislators are willing to listen; and, if not, it will be a judge who has the final say-so.

Farris Cadle
Via the Internet

Editor's Note: Cadle supplied the following references:

"Some of the more prominent cases that make the ruling are: *Georgia v. South Carolina*, 497 U.S. 376, 111 L.Ed.2d 309, 110 S.Ct. 2903 (1990); *State of Arkansas v. State of Tennessee*, 310 U.S. 563, 84 L.Ed. 1362, 60 S.Ct. 1026 (1940); *Commonwealth of Massachusetts v. State of New York*, 271 U.S. 65, 70 L.Ed. 838, 46 S.Ct. 357 (1926); and *State of Michigan v. State of Wisconsin*, 270 U.S. 295, 70 L.Ed. 595, 46 S.Ct. 290 (1926). Discussions and citations to additional rulings on the matter can be found in *American Jurisprudence*, Second Edition, volume 72 'States, Territories and Dependencies' section 29 at pages 423-24; and *Corpus Juris Secundum*, volume 81A 'States,' section 10 at page 286. The principle that a line acquiesced in by adjoining states becomes binding as to the boundary between those two states was extensively discussed by a Georgia attorney with reference to the northern boundary of Georgia more than one-hundred years ago. See Charleton E. Battle, 'The Georgia-Tennessee Boundary Dispute,' in *Report of the Nineteenth Annual Session of the Georgia Bar Association*, Atlanta, 1902, pages 87, 88–89, 111–17."

Got some feedback? We always enjoy hearing from our readers. Send us an e-mail via *www.amerisurv.com*, or send a letter to: The American Surveyor, P.O. Box 4162, Frederick, MD 21705-4162. We reserve the right to edit letters for clarity and length. Due to the variety of titles used by licensed surveyors throughout the U.S., we use the title LS after the name of any registered land surveyor.